
A Computer Aided Synergetic WW3!

Alexander G. Yushchenko*

National Technical University “Kharkiv Polytechnic Institute”, 2, Kyrpychova vulytsya., 6 1002, Kharkiv, Ukraine

Corresponding Author

Alexander G. Yushchenko

Abstract: The paper proposes a hypothesis that Russia uses AI methods and supercomputers to optimize its strategy in the synergistic war. The priorities of the synergistic war and the methodology for revealing its consequences through intellectual simulation are described. Several resonant geopolitical events in the US and Ukraine that seemed to be patriotic when initiated by the presidents or civic activists but ultimately proved to be beneficial to the enemy are reviewed in this light. A new body intended for global geopolitical monitoring and management of synergetic defense of the Russian Federation is described and analyzed, which bases its work on an expert system installed on a powerful supercomputer. The importance of the information component of the synergetic war is underlined and the technologies for Data Mining modeling the media influence on a society are briefly described. It is proposed to create defense centers in NATO member countries that would be analogous to the described defense center in Russia, and it is recommended to use AI methods in their work to simulate geopolitical situations for making more effective management decisions.

Keywords: Data Mining algorithms, cyber-attacks, supercomputer, expert system, security system, synergetic war, Defense Management, Kremlin propaganda, informational management, NATO.

INTRODUCTION

Unimaginable chaos and alarm engulfed the modern world, in which the international security system that has been built for decades is decaying with increasing speed. Real disintegration threatens the EU and even NATO [1]! While the latter managed to extinguish the Kosovo ethnic conflict by force, Russia almost continuously wages war in Europe: Chechnya, Transnistria, then Georgia and now Ukraine.

The ISIS terrorists spread out across many countries of Asia and Africa terrify the whole world with their Stone Age cruelty to either prisoners or cultural monuments [2]. Many countries and various military and political groups are tied up in the Syrian war, bloody terrorist attacks shake Europe choked with waves of refugees, which caused a dangerous right-wing radical shift in European politics: Italy, Poland, Hungary, the Czech Republic and Austria [3]. Add the revival of the Turkish sultanate [4], loyal to Russia, and the election of the pro-Kremlin Trump by white working class of the United States [5, 6]. The author of this text adheres to the version that the world undergoes the WW3 waged with hybrid methods, and the war was unleashed by the mafia & KGB state headed by Putin [7]. At least Putin who spoke about the glorification of death for the sake of the fatherland in his presentation of the concept of so-called «Russian World» [8] urged citizens to prepare for a war and outlined a plan for transforming the economy to martial law [9]. We should consider that the active phase of the WW3 started at September 11, 2001 [10]. We should understand that the war casualties are not only the resonant murders of Ukrainian politicians and journalists but also the Polish political elite and passengers of the MH-17 Boeing. We

should realize that the cyber-attacks on Hillary Clinton, the Kremlin’s trace in Trump motivations, etc. are the special operations of the war. The number of cyber-attacks targeted mainly at NATO member states has increased significantly, e.g. Petya virus penetrated the computer networks of many companies in the UK, the Netherlands, France, Denmark, the USA and Ukraine [11, 12]. Daniel Coats, National Intelligence Director believes that Russia, Iran, China and North Korea will constitute the largest cyber threat for the US in the nearest future [13]. According to the available information, China and the United States lead in development of cyber forces, the former – in quantity of the forces, the latter – in the level of financing [14]. They are closely followed by Russia, Great Britain, South and North Korea, France and Israel. It follows from the foregoing analysis that the hypothesis that there is a hybrid WW3 currently underway is sufficiently substantiated. This paper provides a brief description of the new war and attempts for the first time to explain the logic of events from the standpoint of modern AI technologies.

Artificial intelligence technologies of the synergetic war

We had characterized the synergetic war waged by the Ruscist Kremlin against the Euro-Atlantic civilization in [15]. Here we only emphasize that the purpose of the war is to create chaos in the enemy by hybrid methods, which can be represented in the form of an operator of the sum of various civilizational components – from military-terrorist to cultural and religious [7]. The war extends to all the existing realities: physical, mental and virtual one. The goal is to infect the enemy with agents provocateurs in the higher

echelons of power as well as manipulators in the mass media distributing demoralizing mental viruses [16]. Below we try to explain the logic of the synergistic war based on a hypothesis about the use of AI technologies. In addition to the possible reasons of WW3 [7] listed above, we should mention possible results of computer simulation of survival strategies of various military-political unions and individual countries in the conditions of a total ecological catastrophe [17]. It is necessary to add the catastrophic climate change as well as the increase in consumption of natural resources by almost one and a half million population of China [18] to the described biosocial and technogenic indicators.

It can be expected that the simulation will demonstrate a high probability of inevitability of a power struggle for the depleting resources between the SCO and NATO military and political blocs, as well as among individual countries, and very small probability of preservation of cooperation and stability. In fact, this could be the justification for a global war based on the results of computer modeling, which could well have been done on supercomputers in China or Russia many years ago. In general terms, this is a multi-level model of the climate change and its impact on the allied and adversary societies, calculation of possible competing strategies of cooperation vs. war to ensure own stability. It is obvious that supercomputers are necessary for monitoring, forecasting and developing strategies and tactics for the geopolitical homeostasis of superpowers. Apparently, this was first understood in Russia, which deployed its National Center for Defense Management (NCDM) subordinate directly to the General Staff as early as December 2014 [19]. The purpose of the Center is "to coordinate the actions of the Armed Forces of the Russian Federation, to maintain them in a combat-ready state and to fulfill other information and coordination tasks to ensure national security". Even though Russia is not the leader in developing the most powerful supercomputers and their operation, the supercomputer in NCDM has "computational power and memory capacity several times higher than the Pentagon supercomputer (5 petaFLOPS and 12 petabytes)" [20]. It has an installed expert system for "monitoring and analysis of the military, political, social and economic situation in the country and in the world" that integrates high-quality automatic translation from six languages (the number to be increased in the future), processing of printed text, radio scripts, blogs, social networks, computer television and live broadcast in real time, a system for recognizing images and identifying people and objects. "The expert system "carries out continuous monitoring of movement of troops, traffic jams, publications in the media and messages in social networks." Its knowledge base contains "data on the largest military conflicts of our time to effectively analyze future threats" with the aim of "forecasting of development of armed conflicts". In general, the expert system is intended to "analyze the situation and draw conclusions" to server as a basis for decisions being

taken by the Supreme Commander. Consequently, the expert system monitors the military, social and political situation not only in the Russian Federation, but throughout the world, forecasts threats and optimizes military strategies in real time. It is characteristic that, along with traditional military issues, equal attention is paid to the monitoring of world media including the Internet. The Russian Federation itself broadcasts through the Russia Today multilingual propaganda: in more than 100 countries around the world and it uses engaged journalists in other media of NATO member countries [21].

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 training of related specialists in higher educational institutions. But the actual information threat to the society has not been fully understood, and an adequate response has not been found yet. Unfortunately, the informational threat that consists in mass dissemination of psycho viruses disorganizing the enemy through the enemy's own mass media has not sufficiently understood yet, not even discussed at specialized defense centers [22-24]. Therefore, attention to be paid to the problem of simulation of the influence of the media on society needs, which will be discussed elsewhere. Since in a synergetic war disorganization of the enemy up to the state of chaos is the main goal, the development of strategies leading to this goal has the highest priority.

I should note that I find much common in the information technologies of the Kremlin trolls, provocateurs in the media and the initiatives of individual politicians, as well as pro-Kremlin political groups. Trolls often disguise themselves as ultra-patriots, they curse the enemy, not being embarrassed by the dirtiest expressions and offensive metaphors, produce mainly rational comments and provide good advice on different occasions. However, having gained confidence, they promote ideas or initiatives that are very dangerous now. The result of their activity is equal to the residual of the sums of positive and negative consequences most of which are hardly possible to be estimated not only by an ordinary citizen, but also by a professional since the final effect usually becomes apparent after a certain period triggering a series of unobvious chain reactions [25]. This indicates that the social and political initiatives themselves or their stimulating ideas were previously modeled on a supercomputer.

Some examples of seemingly patriotic initiatives that have led to catastrophic consequences

Ukraine: We confine ourselves to the most resonant examples. The pro-Kremlin President

Yanukovich unexpectedly announced a policy of European integration [7, 16, 26]. To support the policy, he engaged his party and the pro-Soviet electorate. The policy provoked optimism among the national-patriotic population of Ukraine. Using administrative resources, he has his pro-Russian activists to conduct of pro-European propaganda and mass rallies gathering his disoriented supporters. However, at the last moment he categorically refused to sign the Agreement with the EU on associative membership. Moreover, to create chaos in the country, a small group of apolitical students peacefully protesting the opposite course of association with the Russian Federation was brutally beaten, which led to the tragedy of Euromaidan. The result of this Brownian geopolitics consisted in the Russian annexation of the Crimea and the partial occupation of Donetsk and Luhans regions [27].

A self-proclaimed activist of Euromaidan, Mr. Parasyuk [28], having made his way onto the stage, in violation of the peace agreements between the opposition and Yanukovich, issued an ultimatum to the latter and threatened an armed assault of the administration. At this very time, Yanukovich had already left Kiev and flew to Kharkov, and the seizure of his administration would have profited only the Russian aggressor, still questioning the legitimacy of the post-Maidan government. The same Parasyuk and dubious activist Grishin (Semenchenko) [29] organized a blockade of industrial enterprises under the control of Ukrainian oligarchs caught in the occupied territories of Donbas, declaring them hostile. As a result of the difficult-to-see mutual economic ties and assessments of the losses and profits of Ukraine and the occupied territories, terrorists nationalized factories and mines, while Ukrainian industrial production fell by 6.1%, and the actions of the Ukrainian leadership forced to join the blockade after expropriation were condemned by the EU [30]. At the same time, the most negative consequence of the blockade is disorganization of the state system of economic management and the state monopoly on force. Being brought to its logical conclusion, this trend means the self-destruction of Ukraine in fighting among militant groups who have different opinions as to certain social and political issues [25].

USA: The attack on September 11, 2001 led to a change in the concept of US strategic defense [31]. Military presence was reduced in Europe and the Pacific but increased in the Middle East, North Africa, and South Asia. Simultaneously, there was a sharp rapprochement between Russia and NATO, embodied in the formation of the Russia-NATO Council, whose goal was the development of consensus decisions, which allowed Russia to exert every possible resistance to the integration of its former satellites into NATO [32]. Eventually, the marked consequences of the terrorist attack were facilitated by the dismemberment of Georgia and Ukraine by Russia, as well as the

creeping Chinese expansion in the South China Sea. In general, they weakened the position of the US and NATO in the direction of the main blow to the Chinese-Russian axis, including the Arctic and Alaska [7]. Trump exacerbated this disastrous trend withdrawing from the Pacific Partnership, freeing up space for Chinese partnership initiatives [33]. It is now clear to many that President Trump's outwardly patriotic initiatives lead to the collapse of NATO and the EU [1], the destabilization of America itself and intensification of a big war in Syria [25]. Therefore, we confine ourselves to the most significant consequences, obscure and very dangerous for the whole world. Trump's unilateral withdrawal from JCPOA agreement on Iran, which he has grounded with the fact that the terms of the treaty are not sufficient to prevent the development of nuclear weapons, and the abolishment of sanctions will yield \$100 billion, which can be partially spend for weapon development and terrorism support. However, in fact, this will lead to the radicalization of Iranian society, the resumption of the nuclear weapon development program, the escalation of the military conflict between Israel and Iran, as well as their allies [34]-[36]. Also, the historical alliance of the US-Europe is undergoing a crisis, as Trump threatens sanctions not only to Iran, but also to European companies. The peace initiatives of Trump – Kim Jong-un summit proclaim the intentions of the parties to denuclearize the Korean peninsula. However, they result in legitimizing the red fascist Jong-un and encouraging other dictatorial states to obtain nuclear weapons. The initiatives themselves originated from China and Russia [37] and are aimed at weakening the American troops at the rear of them, especially since Trump announced the cessation of military exercises that served as a deterrent to Chinese-Russian aggression in Alaska and Arctic region [38]. Thus, Korean peace plans increase the likelihood of a great war, which may begin in the Syrian cauldron, as a long-range consequence of Trump's Iranian initiatives.

Summing up the considered political initiatives and discovering the cause-effect relationships with the help of leading experts, one can conclude that, at least, most of them are modeled by AI methods and initiated by the Russian Federation!

Brief information on technologies for modeling the influence media have on a society

In a synergetic war, the priority strategy consists in infecting the enemy with provocateurs and psychoviruses to provoke the enemy's self-destruction [7, 15]. The most vulnerable foci of the society under attack are located at the points of internal social and political tension and there the external aggressor's actions are targeted. We can point out the following problems as examples: migrants, state language, religion, culture, LGBT, various reforms: from medical - to pension one, foreign policy priorities, etc. The experience of the lengthy information struggles the author leads against the Kremlin trolls and bots

indicates that the provocateurs' actions are synchronized with their information support in the media. Monitoring the media, including social networks, it is possible to detect a psychovirus attack with destructive memes and thereby predict the physical actions that they stimulate and support. Such forecasts may even have a long-term character, for example, that with the help of Yanukovych the Russian Federation intends to annex the Crimea and the South-East of Ukraine [26] or that Trump is an some "American model" of Yanukovych [6], etc.

Here we consider the issues of simulating media impact on a society since especially the analysis of Kremlin propaganda demonstrates its explicit adaptation to specific social strata of a particular country [39], which also confirms the hypothesis of using computer simulations. Obviously, the use of such technology allowed Cambridge Analytica to calculate Trump's election strategy [40], motivating the white working class of America [5]. At least, this explains why a company with Russian participation obtained a mental section of 50 million Americans through Facebook. Note that having a model of the influence of certain messages on the population, it is possible to solve the inverse problem of synthesizing certain content to provide the required stratum response. A detailed analysis of the modeling of the influence of the media on society will be considered elsewhere; here we describe it in the most general terms based on our own experience.

Within the framework of the NATO project «Intellectual Modeling of Information Management of Political Mentality. Dynamics of Social Ukrainians Strata Towards NATO» [41] we have obtained certain results concerning the specifics of NATO image presentation by Ukrainian mass media and its connection to the dynamics of the population's attitude to the Alliance. The research covers the period of 1996 till the end of 2001 and was performed in an interdisciplinary framework including methods of sociology, cognitive psychology, mathematical statistics and artificial intelligence. The informational domain of Ukraine - including TV, radio and press - was studied with the method of content-analysis of certain semantic and psychological categories including anchor-constructs, which were based on Maslow's theory human needs. For building logical and mathematical model of the influence the informational domain has on the population of Ukraine, we distinguished fifty-four social strata basing on cluster analysis of demographic variables. The strata were distinguished according to the similarity of their mental values. The dynamics of strata was studied with the methods of sociology and cognitive psychology. Special attention was paid for the strata that are the most important for informational management, e.g. the largest, the most dynamic ones, the strata with the greatest part of ambivalent members, etc. Political and economic factors revealed explains the

strata dynamics with a set of simple cause-sequence relations, which formed a knowledge base for an expert system that simulates mass media influence on population. The method of regressive analysis of formalized informational flows and corresponding attitude dynamics in the strata allows calculating β -coefficients for approximate quantitative estimation of the mass media influence on the latter. Direct and indirect inference methods combined with methods of mathematical statistics formed the inference apparatus of the expert system. The system can explain and quantitatively estimate public opinion dynamics for known informational flows and vice versa to calculate informational flows necessary for the desirable opinion dynamics.

The proposed approach was further modified using Data Mining models and various features of Microsoft SQL Server platform [42], which allowed building models of the influence of the media on the image of NATO in subsequent years, on the development of family values, on the crime level in the society, etc [43-50].

Here we can summarize that the rapid evolution of Data Mining algorithms is such that the main task consists in collecting comprehensive databases while their relationships can be calculated automatically by various methods, and the coherence of the calculation results serves as additional proof of their correctness.

CONCLUSIONS

Summarizing the above, we can conclude that the hypothesis that Russia uses AI methods for waging modern synergetic war has a sufficient justification. First, it is supported by our analysis of non-obvious initiatives of leaders and activists, which – despite their ostentatious patriotism – ultimately prove to be beneficial to the enemy. Second, Russia has engaged a supercomputer of specially created NCDM to solve the monitoring and defense issues. Third, the propagandistic information content bears all the hallmarks of targeted optimization for the intended impact on specific strata with considering their mental characteristics. It follows that defense centers like the NCDM should be organized in the countries of the Euro-Atlantic civilization and they should be linked to analogous center at NATO. Technology race in the field of building ever more perfect supercomputers becomes the decisive factor in the development of effective defense strategies against all kinds of threats in all existing realities: physical (traditional war), mental (defense significance of mentality) and virtual (cyber war). The geopolitical success of the Russian Federation in the synergetic war that led to the crisis of NATO and the EU on the eve of a Big War can be explained by the pre-eminence in the application of AI methods, while the leading world politicians "do

business as usual" relying on the resources of their minds and advisers.

REFERENCES

1. Stoltenberg, J. (2018). Europe and North America need to stay united – now more than ever, *The Guardian*.
2. Lister, T. (2017). Bigger battles are rising from the ashes of the war on ISIS, *CNN*.
3. Harris, C. (2018). Explained: the rise and rise of populism in Europe, *Euronews*.
4. Cagaptay, S. (2017). *The new sultan: Erdogan and the crisis of modern Turkey*. IB Tauris.
5. Yushchenko, A. G. (2017). MADE IN USA-Make Russia Great Again (in Russian)", *ResearchGate*. https://www.researchgate.net/publication/310766792_MADE_IN_USA_-_Make_Russia_Great_Again_in_Russian.
6. Yushchenko, A. G. (2017). An Open Letter to Hillary Clinton, *ResearchGate*. https://www.researchgate.net/publication/309704118_AN_OPEN_LETTER_TO_HILLARY_CLINTON.
7. Yushchenko, A. G. (2016). «World War III», *Ukraine: Trette Tysyacholittya*, Kharkiv, Ukraine, (in Russian). https://www.researchgate.net/publication/308904599_World_War_III_in_Russian
8. A direct line with Vladimir Putin. (2014). Moscow, <http://kremlin.ru/events/president/news/20796>.
9. Putin, V. V. (2017). Meeting with the leadership of the Ministry of Defense, the defense industry complex, heads of ministries and regions. <http://kremlin.ru/events/president/news/56150>.
10. Alexander, G., & Yushchenko. (2017). About NATO-Ukraine-Russia in Hybrid War, On the air of ATN TV (Kharkiv, Ukraine). <https://www.youtube.com/watch?v=oTwQ2DVvpeE>
11. Matt, B. What is the Petya ransomware spreading across Europe? WIRED explains (англ.), *WIRED UK*.
12. Mindock, C. (2018). Independent, US intelligence chief says Russia is still meddling in elections and „likely“ to keep trying.
13. Sen, A. K. (2018). Director of National Intelligence Dan Coats: Russia is Attempting to Influence US Midterms, Divide Transatlantic Alliance, *Atlantic Council*.
14. Kolomychenko, M. (2017). Cyberwar's units have been introduced on the Internet, *Kommersant* (Source: Zecurion Analytics).
15. Yushchenko, A. G. (2018). A Multi-Science Study of Modern Synergetic War and Its Information Security Component.
16. Yushchenko, A. G. (2014). Ukraine has to win the Information War", *Ukraine: Trette Tysyacholittya*, Kharkiv, Ukraine, 21-23. https://www.researchgate.net/publication/269990891_UKRAINE_HAS_TO_WIN_THE_INFORMATION_WAR_in_Russian
17. Zubakov, V. (2002). *Endoecological Poisoning and Evolution: The Survival Strategy*, Moscow: Russia development Fund, 86.
18. Xie, G. D., & Lu, C. X. (2009). *Area Studies - China: Regional Sustainable Development Review*, I, EOLSS publishers\ UNESCO.
19. The National Defense Management Center. https://en.wikipedia.org/wiki/The_National_Defense_Management_Center/https://structure.mil.ru/structure/ministry_of_defence/details.htm?id=11206@egOrganization.
20. NDMC Supercomputer, https://en.wikipedia.org/wiki/NDMC_Supercomputer
21. RT (TV network), [https://en.wikipedia.org/wiki/RT\(TV_network\)](https://en.wikipedia.org/wiki/RT(TV_network)).
22. Yushchenko, A. G., & Sergienko, I. A. (2000). Information monitoring and information correction of some sources of a regional instabilit, *Proc. of Int. Conf. BSEC, Kharkiv, Ukraine, 277-282*. https://www.researchgate.net/publication/269990455_INFORMATION_MONITORING_AND_INFORMATION_CORRECTION_OF_SOME_SOURCES_OF_A_REGIONAL_INSTABILITY_in_Russian
23. Yushchenko, A. G. (2017). Kremlin tests on Ukrainians a new information weapons Information Shock!" class?, *Research Gate*. https://www.researchgate.net/profile/Alexander_G_Yushchenko/contributions.
24. Yushchenko, A. G. (2017). SOS Ukraine 2017, *Research Gate*. https://www.researchgate.net/profile/Alexander_G_Yushchenko/contributions
25. Alexander, G., & Yushchenko. (2018). The latest breaking news on world synergetic war, on the air of ATN TV (Kharkiv, Ukraine). <https://www.youtube.com/watch?v=KAuZYRs64II>
26. Yushchenko, A. G. (2015). MAROON LEVIATHAN (Full version) (in Russian), *Research Gate*. https://www.researchgate.net/publication/278672019_MAROON_LEVIATHAN_Full_version.
27. Annexation of Crimea by the Russian Federation, https://en.wikipedia.org/wiki/Annexation_of_Crimea_by_the_Russian_Federation
28. Volodymyr Parasyuk, https://en.wikipedia.org/wiki/Volodymyr_Parasyuk
29. Semen Semenchenko, https://en.wikipedia.org/wiki/Semen_Semenchenko
30. Groisman counted losses from the blockade of the ORDLO. (2017). *Ukrayinska Pravda*.
31. America changes its strategy in the battle with Russia, an important role is assigned to Ukraine, - US intelligence Stratfor, *Politolog*, (in Russian). <http://politolog.net/novosti-mira/amerika-menyaet->

- strategiyu-v-bitve-s-rossiej-vazhnaya-rol-otvedena-ukraine-razvedka-ssha-stratfor/
32. Alexander, G., & Yushchenko. (2017). About the Kremlin's plans to annex the Crimea and destroy the Ukrainian statehood, On the air of ATN TV. <https://www.youtube.com/watch?v=oTwQ2DVvpeE>
33. Instead of America. (2017). How Trump gave China a chance at global leadership, Carnegie Moscow Center. <https://carnegie.ru/commentary/67787>
34. Zakaria, F. (2018). Trump's only possible Iran strategy is a fantasy, The Washington Post.
35. Maryasov, A. (2018). Ex-ambassador of Russia in Iran about what will lead to the break of the nuclear deal with Tehran, Gazeta.ru. https://www.gazeta.ru/politics/2018/05/11_a_11748277.shtml
36. McFaul, A. (2018). About the US withdrawal from JCPOA with Iran: Putin says he is disappointed, but secretly rejoices, Channel 4 News. <https://russian.rt.com/inotv/2018-05-11/Makfol-ovichode-SSHA-iz>
37. Double Frost and Road Card. (2017). The Role of the Russian-Chinese Initiative in the Settlement of the Korean Crisis, Valdiya committee. <http://ru.valdaiclub.com/a/highlights/dvoynaya-zamorozka-dorozhnaya-karta/>
38. Sabur, R. (2018). White House denies it is reducing US troops in South Korea, The Telegraph.
39. The Strategy and Tactics of the Pro-Kremlin Disinformation Campaign, EU vs Disinfo. (2018). East StratCom Task Force. <https://euvsdisinfo.eu/the-strategy-and-tactics-of-the-pro-kremlin-disinformation-campaign>
40. Cambridge Analytica closing after Facebook data harvesting scandal. (2018). The Guardian.
41. Yushchenko, A., Postupniy, O., Nikitina, L., Chernetska, T., Zavalodko, A., & Dovgopol, M. (2000). 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 062, 153. <https://www.nato.int/acad/fellow/00-02/yushchenko.pdf>
42. Data Mining (SSAS), Microsoft, <https://docs.microsoft.com/en-us/sql/analysis-services/data-mining/data-mining-ssas?view=sql-server-2017>
43. Ivashina, A. O., Lapshina, N. A., Mikhailova, Y. M., Grib, A. S., Dmitrenko, S. V., Chukhlebova, A. A., & Yushchenko, A. G. (2012). Intellectual modeling of the influence of TV of Ukraine on the image of NATO for the period 20010-2011, NTU "KhPI" Conferences: Information Technology and Intellectual Property. <http://archive.kpi.kharkov.ua/View/34372/>
44. Leonidova-Lysenko, M. S., Dakter, V. P., Yushchenko, A. G. (2012). Intellectual modeling of the influence of TV of Ukraine on the crime rate of the society, NTU "KhPI" Conferences: Information Technology and Intellectual Property. <http://archive.kpi.kharkov.ua/View/34371/>
45. Polyakova, M. Y., Slidus, A. D., Tereshchenko, A. A., Masalov, A. V., Chitnik, V. S., Tarasenko, D. I., & Yushchenko, A. G. (2012). Logic-mathematical modeling of media influence on the image of NATO in the period 2002-2010, NTU "KhPI" Conferences: Information Technology and Intellectual Property. <http://archive.kpi.kharkov.ua/View/34377/>
46. Novokhatsky, S. O., Lyubchenko, A. V., Kashcheev, S. A., Tanezevsky, V. V., Evdokimenko, D. Y., Savvi, V. C., & Yushchenko, A. G. (2009). Mathematical models of the influence of modern media on the formation of the image of NATO, NTU "KhPI" Conferences: Information Technology and Intellectual Property. <http://archive.kpi.kharkov.ua/View/34519/>
47. Novikova, A. A., Lutsenko, A. N., Kolosov, V. A., Doroshenk, A. Y., Dovzhenko, T. M., Balenko, V. V., Yushchenko, A. G., & Zavalodko, A. E. (2007). Modeling the influence of the media on the mentality of the Ukrainian population on the topic "UKRAINE-NATO", "NTU "KhPI" Conferences: Information Technology and Intellectual Property. <http://archive.kpi.kharkov.ua/View/32926/>
48. Nedosekova, E. V., Nagoryanskaya, V. A., Filippenko, A. N., Malenkin, A. S., & Yushchenko, A. G. (2007). Numerical analysis of the content of the STB channel and the modeling of its influence on the formation of the system of family values, NTU "KhPI" Conferences: Information Technology and Intellectual Property. <http://archive.kpi.kharkov.ua/View/34408/>
49. Varlygina, A. Y., Dmitrenko, A. Y., Zavalodko, A. E., & Yushchenko, A. G. (2007). Analysis of the means of constructing a mathematical description of statistical regularities in the SQL Server database, Information Processing Systems, 5(63), 19-22.
50. Yushchenko, A. G., & Zavalodko, A. E. (2010). Information Basis of Mass Media Influence on Dynamic of Ukraine's Strata Towards NATO, Research Gate (in Ukrainian). https://www.researchgate.net/publication/321085273_INFORMATION_BASIS_OF_MASS_MEDIA_INFLUENCE_ON_DYNAMIC_OF_UKRAINE'S_STRATA_TOWARDS_NATO_in_Ukrainian