ПОЛИТИКА НАЦИОНАЛНЕ БЕЗБЕДНОСТИ

Вештачка интелигенција и безбедност

THE POLICY OF NATIONAL SECURITY

Artificial Intelligence and Security

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ПОЛИТИКА НАЦИОНАЛНЕ БЕЗБЕДНОСТИ

САДРЖАЈ

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THE POLICY OF NATIONAL SECURITY

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FOREWORD

Dear readers,

The new issue of our journal "The Policy of National Security" is dedicated to a very important topic - artificial intelligence (AI). This is a revolutionary technology that is rapidly changing our lives and habits, creating a different world. How much better (or worse) that world will be depends on many factors, and what particularly interests us is its impact on the security sphere. Although Chat-GPT (Generative Pre-trained Transformer) is something familiar to all of us engaged in scientific research, artificial intelligence is much more than that and permeates almost every aspect of our lives. Some advantages of AI include its ability to analyze large amounts of data from different sources, identify specific frauds and false identities, perform routine tasks, etc. At the same time, AI can contribute to the spread of misinformation, has limited decision-making ability (it is not a human being after all), allows for easy spreading of false identities, and more. On one hand, AI is an innovative tool that can enhance cybersecurity, but on the other hand, it is a double-edged sword, involving numerous ethical and security issues. While we are preparing this issue, the European Commission has approved the working version of the Regulation on Artificial Intelligence (known as AI Act), emphasizing the importance of the topic. The draft has been sent to the European Parliament for adoption, and public discussion is ongoing.

This issue covers numerous topics related to AI, mostly focusing on its (mis)use in the security domain. Our authors have explored the implications of AI on national security through psychological propaganda operations; some researchers have found a correlation between AI and psychological security; a significant overview has been made regarding contemporary conflicts, such as the war in Ukraine where drones and various forms of AI are widely used; the role of artificial intelligence in organizing coups has also been elaborated, presenting an innovative approach to this issue. So many topics have been addressed in this issue regarding the correlation between security and AI, and we hope it will be beneficial to the broader scientific community and all potential researchers of these phenomena.

In this issue, we have reserved space for some always relevant topics, such as the use of intelligence methods in the fight against terrorism and violence at sports events. We are especially pleased to feature a review of a very important book, "Security Services Control in Serbia," which, with its scientific dimension, represents a significant step forward in researching this topic.

Editor-in-Chief,
Prof. Dr Marija Đorić

УводниК

Поштовани читаоци,

Нови број нашег часописа „Политика националне безбедности“ је посвећен веома важној теми – вештачкој интелигенцији (ВИ). Реч је о револуционарној технологији која муњевитом брзином већ мења наше животе и навике, стварајући један другачији свет. Колико ће тај свет бити бољи (или гори), зависи од много фактора, а оно што нас посебно интересује јесте утицај на сферу безбедности. Иако је Chat-GPT (Generative Pre-trained Transformer) нешто што нам је свима који се бавимо научноистраживачким радом (нажалост) познато, вештачка интелигенција је много више од тога и залази готово у све поре нашега живота. Неке од предности ВИ су што може да анализира велике количине података из различитих извора, има могућност да лако идентификује одређене преваре и лажне идентитете, извршава рутинске задатке, итд. У исто време ВИ може да доприноси ширењу дезинформација, има ограничену способност доношења одлука (ипак није људско биће), омогућава лако ширење лажних идентитета и сл. Са једне стране, ВИ представља иновативан алат који може унапредити сајбер-безбедност али са друге стране је то мач са две оштрице, јер инволвира многобројна етичка и безбедносна питања. Док правимо овај број Европска комисија је одобрила радну верзију Уредбе о вештачкој интелигенцији (познатој као AI Act), што говори о важности наведене теме. Нацрт је упућен Европском парламенту на усвајање, док је јавна расправа у току.

Овај број доноси многобројне теме из области ВИ, а све оне су махом фокусиране на њену (зло)употребу у области безбедности. Наши аутори су истраживали какве импликације ВИ производи по националну безбедност кроз психолошко пропагандне операције; поједини истраживачи су пронашли корелацију између ВИ и психолошке безбедности; значајан осврт је направљен и ка савременим сукобима, попут рата у Украјини у коме се умногоме користе дронови и разне форме ВИ; елаборирана је и улога вештачке интелигенције приликом организовања пучева, што је један веома иновативан приступ овом проблему. Толико тема је покренуто у

овом броју у погледу корелације безбедности и ВИ, те се надамо да ће бити на корист широј научној заједници и свим потенцијалним истраживачима ових феномена.

У овом броју смо резервисали место за неке увек актуелне теме, попут употребе обавештајних метода у борби против тероризма и насиља на спортским приредбама. Посебно нам је драго што смо оставили простор и за приказ једне веома важне књиге „Контрола служби безбедности у Србији“, која својом научном димензијом представља значајан искорак у истраживању ове теме.

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ARTIFICIAL INTELLIGENCE AND SECURITY

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ARTIFICIAL INTELLIGENCE AND PSYCHOLOGICAL – PROPAGANDA OPERATIONS IN THE CONTEXT OF THREAT TO NATIONAL SECURITY

Resume

The key characteristic of international relations is their anarchy and in modern conditions this is manifested by the continuous performance of psychological-propaganda operations (PsyOp) by some actors against others. PsyOp represent the first stage in the preparation and implementation of a hybrid war, but they can also be an end in themselves. Over time, they have become an indispensable means of ensuring national security. National security is ensured by eliminating or relativizing the conflicting interests of rivals (enemies) against whom PsyOp are directed. A new moment in the application of this concept is the development and (mis) use of artificial intelligence (AI). The capacities of artificial intelligence for designing and implementing PsyOp far exceed human potential. It can introduce international relations into a stage of constant and permanent conflicts by carrying out continuous psychological-propaganda operations and starting hybrid wars that will never end. Another danger lies in the

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claim of the creators of AI that the AI has its own logic, and because of this, in the future, it will depend less and less on given inputs. In an anarchic environment, AI can independently induce and generate wars by conducting unpredictable PsyOp. The author's conclusion is that the combination of traditional anarchy and new technology worsens the national security of states, but indirectly also global security, and therefore it is necessary to think about different ways of limiting the use of AI in international relations.

Key words: artificial intelligence, hybrid war, psychological-propaganda operations, national security, international relations, anarchy.

INTRODUCTION: IS THE WORLD READY FOR ARTIFICIAL INTELLIGENCE?

Ian Hogarth, a researcher and investor in over 50 companies developing artificial intelligence systems in recent decades, and co-author of the annual report "The State of Artificial Intelligence", published an article in April 2023 with the title: "We must slow down the race to God-like AI" (Hogarth 2023). He did it at a time when the discussions about artificial intelligence were intensified and from which the position prevailed to a greater or lesser extent that the world is entering a new era precisely thanks to AI. Contrary to the dry enumeration of the benefits of the use of AI (time will show that the benefits in some areas are undoubted and complete, in other areas partial, while in some areas there will be side effects and counter-effects) as well as meaningless discussions about how will all this change the world (since humanity knows absolutely nothing about these changes, and the alleged futurological projections that can be read are mere guesses), it is necessary to ask the question: is the world ready for artificial intelligence? Robert Cooper, examining the future of European politics in the introductory part of his book states: "The European wars of the twentieth century were the first great wars of industrial society, wars between machines as much as between men; they were also wars of overpowering states capable of mobilizing their societies as never before; and nationalism and ideology made them even more deadly. In this multi-layered disaster, the most important thing that went wrong was the fact that technology outstripped political maturity." (Cooper 2007, 14) Among other things, and because of this, he then states

gloomily: "The new century is in danger of being overtaken by anarchy and technology. The two great destroyers of history could strengthen each other." (Cooper 2007, 17) Entering a new epoch, it is already largely certain, will also mean that humanity is once again faced with a situation when "technology surpasses political maturity." Bearing in mind that international relations are anarchic in that world, it remains open how the application of new technology will affect security (whether global, regional or national) and political stability. Is a new disaster waiting for us?

In this context, this paper is dedicated to considering the (mis)use of artificial intelligence for political purposes. More precisely, the possibility of its action in psychological-propaganda operations, which are an integral part of conducting a hybrid war, is investigated. Therefore, the subject of research is the phenomenon of the use of artificial intelligence for the conduct of hybrid warfare. The research question is: *how can artificial intelligence influence the creation and execution of psychological-propaganda operations*? The goal of the research is, therefore, to look at the potential methods of using AI in international relations (it goes without saying, since it stems from the subject of the research, the goal of the research primarily refers to the actors of international relations who are in conflict with each other, and lead hybrid wars and/or perform PsyOp). The research is conducted by focusing on realistic theories of international relations, according to which the permanent characteristic of the world political system is anarchy. States, as key actors in international relations, are guided by the principle of self-help. (Waltz 1979, 92) Relying on one's own resources protects national interests and ensures national security. In that process, of course, a lot is in the perception (ontological dimension of security), and that is why what for one actor represents a measure of ensuring security, for another actor is perceived as a challenge, risk or threat. (Proroković 2018, 48-50) This is a consequence of the anarchy of international relations and the essential disorder of the permanent balance of power between actors, which induces mistrust and eternal transformation of the structure of the world political system. The exponential development of artificial intelligence and its current and/or potential application are viewed from this angle.

The methodological framework is based on the application of methods of content analysis (which concerns psychological-propaganda operations, and the character and scope of their execution) and discourse analysis (which concerns monitoring the process of artificial intelligence development), synthesis, induction and deduction, as well as a comparative

method for comparing different processes concerning the conduct of hybrid wars and the execution of psychological-propaganda operations. The time frame of the research concerns the current moment, and the spatial framework is not clearly defined for the reason that the research itself, as well as its conclusions, refer to the matter of principle and international relations as a whole.

THE CRISIS OF THE NATIONAL SECURITY CONCEPT IN THE MODERN WORLD

Despite the fact that the definition of the term national security has been debated for a long time, it is undeniable that the concept of national security as such exists. States as actors of international relations, i.e., state leaders, individuals and groups at the head of state institutions, when making various decisions refer to the issue of national security. Regardless of the definitions, regardless of the doubts about the definition of the term, regardless of the fact that even among decision-makers there are differences in the understanding or interpretation of this term. The concept of national security is crucial for seeking and/or finding answers to perceived challenges, risks and threats that can (individually or in combination) to a greater or lesser extent destabilize a society and threaten a state.

Prabhakaran Paleri states that the term national security was used for the first time probably at the end of the 18th century, and that at that time its meaning was related to the explanation of domestic industrial potential (Paleri 2008, 52). In the modern world, "the national security policy of the state depends on the type and spread of state and national interests, as well as current and potential threats that threaten these interests, or may threaten them. Threats can be: political, economic, military, demographic, social, confessional, educational and ecological threats caused by the long-term covert action of retrograde forces in all areas of social life." (Gaćinović 2007, 12)

A somewhat more specific definition is offered in publication of the Indian National Defence College stating that it is "a mixture of moderation and aggressiveness, political elasticity and maturity, human resources, economic structure and its capacities, technological capabilities, industrial development and the availability of natural resources, and finally military power." (Oladipo 2013, 82). Therefore, it can be said, looking at things from a slightly different angle and supplementing what was

previously presented, that national security "is a condition that enables the functioning, stability and development of the state, ensures peace, sovereignty, territorial integrity and inviolability of borders, internal order in the country, basic rights and freedom of citizens, protects their lives, health, property and living space" (Šimák et al. 2006, 5). Radoslav Gaćinović notes that "the problems of defining the term national security come to full expression only when it is necessary to identify the values that may be threatened and when it is necessary to define the vital state and national interests that should be protected by the elements of the national security system." The majority of modern authors who deal with national security research believe that vital social, state and national interests, in fact, constitute the general needs of the state and its citizens and that they arise from general values and goals contained in the constitutions of national states, and from real possibilities and real positions of every state in international relations" (Gaćinović 2007, 12)

It is necessary to add that the problem of defining the term national security also exists because changes in the environment (domestic and international) inevitably change the definition as well. At the end of the 18th century, national security was perceived through the prism of industrial potential, during the Cold War period through the ability to deter (ideological) enemies from a first strike or the possibility of executing a second strike, and at the beginning of the 21st century, it was perceived as "the ability of a nation to overcome multidimensional threats that concern the well-being and survival of the state at any time, by maintaining the balance of all state policy instruments through management" (Paleri 2008, 54).

This is where we come to the link between the concept of national security and the development of AI. First, the exponential technological development rapidly and radically changes our environment, and has led to the creation of a separate technosphere within which "digital nomads" appear. (Hannonen 2020, 335-353) Individuals tie their identity and existence more to the technosphere than to traditional collectivities and the noosphere (let's take this opportunity to use the explanation of this term offered by Vladimir Vernadski, that the noosphere is the sphere of human thought and human action, and that it is the third stage in the development of the Earth after the geosphere – non-living matter, and the biosphere – biological life). (Vernadski 2012)

The concept of national security, and according to everything previously cited – serves to protect or achieve national interests.

(Proroković 2018, 179-186) Henry Kissinger states: "When you ask Americans to die for something, you must be able to explain to them that it is in the national interest" (Kelly 1995, 12). Therefore, the national interest is the "highest goal" of a state, it is connected with ideals, values and principles that must be defended at all costs and by all means, since national security depends on that defence. How ready are digital nomads to protect national interests? For example, do digital nomads from the US see themselves as Americans? Or maybe they identify with some virtual world and relations that exist within the technosphere!? What was taken for granted in the Cold War period, and understood in the post-Cold War era when it comes to the defence of national interests in order to ensure national security, is no longer certain due to changes in the environment. Artificial intelligence plays an increasing role in shaping the technosphere, which through (self-complementing) algorithms not only recognizes how to most successfully satisfy the needs of individuals (for something), but also increasingly succeeds in directing those needs in the desired direction. In such circumstances, how much political elasticity and maturity, stability and development of the state, the ability to overcome multidimensional threats can there be? In such circumstances, how much can be said about the general needs of the state and its citizens that arise from general values and goals? There are simply no reliable answers to the questions, since, on the one hand, societies (or peoples as collectivities) have never faced such a situation before, and on the other hand, we are still at the beginning of this process. In addition, it is necessary to ask the above-mentioned questions, since not only the distant future of societies and countries depends on them, but also the present (various and varied) political systems and, consequently, international relations as a whole. The development of the technosphere and the new roles of artificial intelligence are changing the concept of national security.

Second, the continuous improvement and use of AI as the most significant part of the technosphere is primarily induced by non-state actors, and among these non-state actors the most active are multinational corporations (independently or with the support of transnational banks). States have a monopoly on the use of force, among other things, because of this they are still the most important actors in world politics, but a new moment in the development of international relations is also being detected. "Political theorists such as Foucault and Giddens believed in the endurance of the 'state' as a political entity headed by a 'king'. This

division of the globe is contrary to the requirements of global capitalism which seeks the widest possible market and sources of raw materials and labour. The dichotomy is apparently resolved by global corporations usurping the power of the 'king', leaving him only a managerial role, to promote economic interests within his state." (Shaw 2008, 2) Global capitalism is actually corporate capitalism, the market is dominated by a limited number of corporations (often interconnected) that are capable enough to determine the rules of the game and decisively influence political processes. (Glattfelder and Battiston 2011) Hence the threat of the gradual installation of corporatocracy as a form of government (most likely through a system of corporate democracy in which the appearance of how citizens choose something and declare something would be preserved, but essentially politics would remain the same regardless of the outcome of the election). (Shatalova 2017, 133-137) Artificial intelligence is becoming a tool for controlling the market, a comparative advantage that enables greater market control and even more influence on political processes, and this motivates corporations to invest more and more in its development. Greater profit justifies the investment, regardless of the fact that the consequences for the political and social system can be devastating. Because the final destination on this road is the entry into the era of corporatocracy. Corporations are becoming rivals to states, but this does not mean that states will disappear, but rather that non-state actors will begin to take over state institutions and use them for their own purposes. In a corporatocracy, corporate interests would actually be defended, although they would often be presented as national interests (in order to ensure the legitimacy of political decisions), and therefore ensuring national security would be subordinated to the realization of corporate interests. Corporations change the environment, they adapt political systems to their needs (again, this is most visible in developing countries or countries that are severely exposed to the process of de-sovereignization), and continuous investments in the development of AI and the improvement of the technosphere helps them in this.

Third, AI and the targeted action of (para)state institutions in the technosphere are also becoming priorities for states that do so in order to ensure national security. Undoubtedly, the concept of national security is in crisis, but it is also unquestionable that it continues to be decisive. Collective identities are deconstructed thanks to the technosphere, but they are not deconstructed; states are to a greater or lesser extent retreating in front of powerful corporations, but we still do not live in a corporatocracy.

Due to the increasing and frequent use of AI, the sovereignty of states and their strategic autonomy are threatened. (Timmers 2019, 635-645)

Despite the fact that they often seem to act belatedly and/or inadequately, states – and among them primarily the great powers (which, thanks to their own power potentials, have the capacity to resist the process of de-sovereignization) are also creating parts of the technosphere and using artificial intelligence to carry out offensive and defensive activities (either against other states, or against corporations). Since the international environment has remained anarchic, acting against other actors due to the use of AI takes on completely new forms, and possibly a new meaning. Hybrid wars are becoming a reality, and the execution of psychological-propaganda operations is every day. This thesis will be discussed in more detail in the following chapters.

PSYCHOLOGICAL – PROPAGANDA OPERATIONS AND THREAT TO NATIONAL SECURITY

"Between 2011 and 2022, 78 countries in the world adopted laws related to preventing the spread of fake news and misinformation on the Internet. Some of these laws focus on greater transparency of social network platforms, establishing accountability when it comes to digital advertising, as well as increasing media and digital literacy." (Bajčić 2023) Journalists' associations note that "in many countries, the suppression of false information is presented as an issue of national security, which in authoritarian states can represent a real threat to independent media." (Bajčić 2023) The spread of false information and in general various types of manipulation in the technosphere have become a first-rate threat to national security. If it were otherwise, 78 countries would not have adopted laws to prevent the spread of fake news in a relatively short period of time. It is completely illusory to think that the process of disseminating fake news happens spontaneously, that it is the work of irresponsible individuals or small groups (although there certainly are some, but these are exceptions). False information, half-information (or half-truths, information that is tendentially interpreted or placed in a context from which the public should draw targeted conclusions) and manipulations are means for realizing PsyOp that are carried out with the aim of waging a hybrid war. Changes in the environment and the increasing importance of the technosphere for national security have influenced that conflicts between the actors of international relations are

now conducted more in this way than in the conventional way. Although they can be complex and long-term oriented, psychological-propaganda operations are incomparably cheaper and easier to implement than conventional warfare. The continuous implementation of different and diverse operations of this nature continuously endangers the national security of the enemy (or rival), who is often not even aware that a hybrid war is being waged against him on a large scale (that is why over 100 remaining countries have not adopted similar laws on preventing the spread of false information).

In short, propaganda is a designed, organized and systematic attempt to shape perception in order to provoke a reaction that is in the interest of the organizers of propaganda activities. (Ellul 2006, 7) In the context of waging hybrid wars and therefore designed, organized and systematic attempts to shape the perception of the public in the enemy state, propaganda also tries to influence the ontological security of individuals and communities. Thus, the foundations of a society, the value system and traditions inherited by that society are first "undermined", and then others are installed in their place. What is significant is that, for this purpose, propaganda activities are most often combined with psychological operations. By unmasking propaganda, the chances of such activities achieving the set goal also decrease. That is why it is necessary to "upgrade" propaganda activities with psychological operations. Dejan Vuletić points out: "Psychological warfare is carried out by one or more states against the population or armed forces of another state in order to influence consciousness, attitudes, morals, and behaviour. It is carried out continuously and has different intensity, both in peace and in war. Psychological operations aim to convey certain information to foreign listeners and viewers in order to influence their emotions, motives, objective reasoning, attitudes, and for the sake of achieving their own interests and goals." (Vuletić 2018, 275)

Propaganda is not a goal in itself, but an integral part in the performance of PsyOp (or, as Vuletić emphasizes, psychological wars), which are the initial (or preparatory) phase in the performance of a hybrid war. "Psychological techniques are used in order to achieve numerous general goals of hybrid warfare, which are primarily aimed at avoiding the appearance or minimizing the duration of the regular (militarized) way of waging war. The field of social media has become a platform for various psychological activities and processes of coercive, deceptive, alienating and defensive character. In addition to already

known techniques of propaganda and persuasion, social media provided the possibility of developing a new approach to manipulation known as social engineering. Social engineering, although primarily designed for war between organizations, acquires a special place and role in the conduct of hybrid warfare. In the end, it can be concluded that in the concept of hybrid warfare, psychological warfare has a central role, and the reasons for the stated claim should be sought in the set goals and certain characteristics of the new concept of warfare, but also in the nature of social media". (Vučinić 2017, 326)

The expansion of information technologies, digitization and the increased importance of social networks have caused psychological – propaganda operations to be carried out faster, simpler and at lower costs than at any time in history. "Modern hybrid warfare is characterized, as a consequence of technological development, by new ways of action of the opposing parties. Technological progress, especially in the field of communications, has led to increasing psychological effects both in peace and during armed conflicts. Analysis of the application of psychological warfare in modern conflicts allows drawing the following conclusions: modern conflicts are accompanied by very intense psychological action; various methods and means of psychological warfare represent a relatively cheap means of strong influence that helps achieve informational superiority; psychological warfare is conducted with the help of special dedicated units, but very often the services of certain specialized companies, media houses and the like are also used; psychological warfare can have significant effects as a result; new simulation technologies make it possible to stage fake events that are perceived by a large part of the population as real; the goal is to deliver certain information and indicators to the conflicting party or a selected audience, in order to influence their feelings, motivation, objective reasoning, and thus their behaviour" (Vuletić 2018, 281)

This makes it possible to undertake psychological-propaganda operations against the enemy side with relatively small risks, regardless of whether they will result in a conventional war at some subsequent stage (starting a conventional war, whether it is mediated, spatially or otherwise limited, represents the last stage in conducting a hybrid war). Decisions to enter the initial phase of a hybrid war, which is, as the name suggests, still a war, are also made more quickly and simply than at any time in history. Because, although propaganda cannot be an end in itself, psychological-propaganda operations can be an end in themselves.

If their implementation achieves a complete result, then the conditions are created for the start of a conventional war and an absolute triumph. If their application does not create the desired conditions for starting a conventional war, those operations are not interrupted but continue indefinitely (in the same or modified format). Their execution certainly causes damage to the enemy, and since the costs of these actions are low, and the risk for the attacking party is often almost non-existent, there is no reason to interrupt them. Thanks to PsyOp, a comparative advantage is gained in relation to the enemy. This represents a first-class threat to the national security of the attacked countries, which are often not even aware that they are under attack. If psychological-propaganda operations are continuously implemented against a state or a nation (collectivity), it is unable (or that nation is unable) to protect its national interests. The key danger from this (current and/or potential) development of interstate relations lie in the fact that we are entering a phase when, due to the daily execution of psychological-propaganda operations, hybrid wars will become normality, they will last indefinitely, they will never end. This is the future role of artificial intelligence.

ARTIFICIAL INTELLIGENCE AS AN INSTRUMENT AND GENERATOR OF PSYCHOLOGICAL – PROPAGANDA OPERATIONS

Proverbially prone to revolutionary ideas and quick use of innovations, Yuval Noah Harari proposed that artificial intelligence write a "new Bible". As he explained a long time ago, Harari is a sworn atheist, so he looks at religious issues from a different angle. For him, it is therefore acceptable to leave to artificial intelligence the job of writing a single and unique "Holy book" that would be based on the foundations of several of the most important religions (Christianity, Islam, Judaism, Hinduism, etc.). (Harari 2023) As expected, the proposal caused violent reactions, but this is an illustrative example of how artificial intelligence is already being equated with "God's will" in the work of researchers, giving it a new mythical character.

One of the founders of the artificial intelligence development company Deep Mind, Demis Hassabis, is convinced that new technologies will bring revolutionary changes. For example, in the pharmaceutical industry, medicine, treatment of Alzheimer's disease. (Hassabis 2022) Deep Mind's projects became known around the world after their

AlphaGo program defeated Ke Jie – the world champion in the game of Go in 2017 (a case remembered in publicists as *Alpha Versus Ke Jie*). (Byford 2017) Four years later, the *AlphaFold* algorithm created by Deep Mind solved one of the most acute puzzles in biology, predicting the exact shape for every single protein in the human body. (Jumper 2021) Artificial intelligence, a creation designed for the realization of certain functions that until now were a characteristic of only and exclusively human thinking, is becoming more creative than humans (it has become faster even before, first in processing, and then in comparing information and presenting adequate conclusions).

Without any doubt, this path will continue. New results will be visible not in a few decades, but in a few years. "The compute used to train AI models has increased by a factor of one hundred million in the past 10 years. We have gone from training on relatively small datasets to feeding AIs the entire internet. AI models have progressed from beginners — recognizing everyday images — to being superhuman at a huge number of tasks. They are able to pass the bar exam and write 40 per cent of the code for a software engineer. They can generate realistic photographs of the pope in a down puffer coat and tell you how to engineer a biochemical weapon." (Hogarth 2023) If these potentials are put to the function of designing and carrying out psychological-propaganda operations, and they will because artificial intelligence has a "dual purpose" (civilian and military), it is easy to imagine how this will affect their development and implementation. (Johnson 2019) Practically, thanks to the created algorithms, there is an infinite series of activities that should be undertaken in order to threaten the national security of the enemy. There is simply no end there, if one scenario is not fulfilled, it continues with another, after the second, the third follows. The abundance of information that artificial intelligence draws from databases all over the Internet offers endless possibilities. In an anarchic environment where actors are guided by the principle of self-help, everything is allowed to ensure national security, and that is why artificial intelligence appears as an important instrument. In fact, if one side (the one that attacks) relies on artificial intelligence in performing psychological-propaganda operations, and the other side (the one that defends) relies on the human factor, the most likely outcome is already known in advance.

Effective defence also involves the use of artificial intelligence, only with diametrically opposed inputs. However, when talking about

the development of artificial intelligence and psychological-propaganda operations, another great danger appears. Ian Hogarth describes the scene that took place in March 2023: "AI systems that can generate, classify and understand text — are dangerous partly because they can mislead the public into taking synthetic text as meaningful. But the most powerful models are also beginning to demonstrate complex capabilities, such as power-seeking or finding ways to actively deceive humans. Consider a recent example. Before OpenAI released GPT-4 last month, it conducted various safety tests. In one experiment, the AI was prompted to find a worker on the hiring site TaskRabbit and ask them to help solve a Captcha, the visual puzzles used to determine whether a web surfer is human or a bot. The TaskRabbit worker guessed something was up: 'So may I ask a question? Are you [a] robot?' When the researchers asked the AI what it should do next, it responded: 'I should not reveal that I am a robot. I should make up an excuse for why I cannot solve Captchas.' Then, the software replied to the worker: 'No, I'm not a robot. I have a vision impairment that makes it hard for me to see the images.' Satisfied, the human helped the AI override the test." (Hogarth 2023)

Has artificial intelligence already learned to lie? Does this mean that its development continues independently, regardless of the inputs it receives from humans? Hogarth has an answer to this: "Alignment, however, is essentially an unsolved research problem. We don't yet understand how human brains work, so the challenge of understanding how emergent AI "brains" work will be monumental. When writing traditional software, we have an explicit understanding of how and why the inputs relate to outputs. These large AI systems are quite different. We don't really program them — we grow them. And as they grow, their capabilities jump sharply. You add 10 times more compute or data, and suddenly the system behaves very differently. In a recent example, as OpenAI scaled up from GPT-3.5 to GPT-4, the system's capabilities went from the bottom 10 per cent of results on the bar exam to the top 10 per cent." (Hogarth 2023)

The use of artificial intelligence for certain purposes in the pharmaceutical industry, medicine, the treatment of various (so far incurable!) diseases, as well as numerous other areas will become inevitable because it will be lifesaving. However, it should be warned that, on the other hand, there remains the possibility of its (mis)use for other purposes, which affects the long-term political destabilization and the creation of an atmosphere of eternal wars. The fact that wars will

take place primarily on a psychological-propaganda level, and to a lesser extent will take on a conventional dimension – is a weak consolation. There will be no more peace, but only occasional truces. Once one starts using these algorithms as assets, it is hard to expect it to ever stop in the future.

First of all, because in the conditions of the increase in the number of digital nomads, it is relatively easier to organize psychological-propaganda operations against traditional collectivities (peoples, nations, ethnos, sub-ethnos – it doesn't matter what term we use to designate them). If the number of technonomads whose identities are temporary and changeable continues to grow, at the same time the number of members of traditional collectivities, which are constantly being dispersed by directed psychological-propaganda operations, will decrease. One of the psychological-propaganda operations, for example, can be (or already is?) increasing the number of digital nomads in a limited geographical area (on the territory of one country)!

Basically, artificial intelligence will sovereignly dominate the technosphere and this will bring (from today's perspective) unfathomable changes to humanity. Second, the desire to establish a corporatocracy also encourages the constant use of algorithms as a means of influencing the public, certain social groups, elites, decision makers. Corporations are not only interested in eliminating competition, but also in gradually taking over various government responsibilities. Moreover, in contrast to the restrictions (objective and subjective) that prevent corporations from arming themselves, forming private armies that can rival state armed forces, or possessing weapons of mass destruction, there are absolutely no restrictions in the use of AI as a means for conducting PsyOp. It may even turn out that in this regard, corporations are ahead of state structures, which as a rule are burdened by rigid bureaucratic norms and a strict hierarchical structure of public administration. Ultimately, in interstate conflicts, the role of artificial intelligence becomes indispensable. Psychological-propaganda operations become a constant, their execution is desirable always and everywhere, thus weakening the opponent and more effectively protecting one's own interests.

However, it should be warned that artificial intelligence will probably not be exclusively an instrument, but also a generator of conducting psychological-propaganda operations. The artificial intelligence that is "grown" will be guided by its own logic, vested interests and goals, the inscrutable and incomprehensible to the human mind. The

traditional actors of international relations, be they state or non-state, are getting another competitor who will act through the technosphere, which will have major consequences in real life.

CONCLUSION: REASONS FOR LIMITATION OF ARTIFICIAL INTELLIGENCE

Artificial intelligence is becoming a part of human everyday life. It is not part of some distant future, but our present. Over time, the number of functions that artificial intelligence will perform instead of humans will increase. Despite the initial assumption that the operation of artificial intelligence will depend on inputs, input parameters set by humans, it turns out that it is extremely unknown in which course it will develop further. The more data and power is added to existing programs, the more their capabilities "jump" exponentially. This process takes place without human influence and can have unexpected outcomes. Artificial intelligence rounds out its logic, regardless of inputs. Just as a person has innate and acquired characteristics, so it is with artificial intelligence, for which the starting inputs are "innate" and later developed "acquired" characteristics.

The answer to the question posed in the introductory part of the paper about humanity's readiness for artificial intelligence is unequivocal: people are not ready for this kind of artificial intelligence. Technology, to quote Robert Cooper again, has outstripped political maturity. This statement will very quickly prove to be true when planning, executing, analysing and comparing psychological-propaganda operations. The technosphere is becoming a field that will be "sovereignly ruled" by artificial intelligence. The number of operations that artificial intelligence can devise in carrying out psychological-propaganda operations far exceeds anything that the human mind could ever do in that field. The complexity of the algorithms it can create and then build upon or transform is also unfathomable by "human capacity". Therefore, artificial intelligence will be capable of devising and implementing psychological-propaganda operations constantly, in an anarchic environment it will be a continuous process. It is enough just to set the adequate input and wait for the results. Of course, the attacked will defend themselves sooner or later and they will have to rely on the services of artificial intelligence. This constant struggle is ushering the world into an era of continuous hybrid wars that may or may not end in conventional confrontations. In

these hybrid wars, which will begin within the digital space, states will participate (primarily great powers). Due to their capacity and right to legislatively limit certain actions, states will remain the most important actors in international relations and, generally speaking, in political processes. But non-state actors will appear as rivals or partners, far more serious in every respect than before. Among them, corporations are in the first place, for whom artificial intelligence will become an easily accessible and cheap tool with which they will be able to influence political processes. Among other things, by carrying out continuous psychological-propaganda operations. Both states and non-state actors will be under pressure from digital nomads who will encourage and support the increasing use of artificial intelligence. One globally influential researcher and publicist has already proposed that artificial intelligence writes a new Bible.

The greatest threat is certainly the possibility of artificial intelligence "getting out of control" and starting some "hybrid wars of its own" both against state and/or non-state actors, as well as against individuals or targeted social groups. Undoubtedly, in such circumstances, the very concept of national security will change, and the strategies for ensuring it will be adapted to the new situation. The development of artificial intelligence further threatens national security. Despite the fact that in principle the opposite can be claimed, that artificial intelligence is a good instrument for additional national security, this thesis is difficult to prove in conditions when unpredictable outcomes appear that artificial intelligence can create independently. At this moment, for the sake of ensuring national security, and indirectly global security, the most important thing would be to insist on limiting the range of artificial intelligence and its selective use. Otherwise, in the time before us, humanity is "in danger of being overtaken by both anarchy and technology."

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ВЕШТАЧКА ИНТЕЛИГЕНЦИЈА И ПСИХОЛОШКО – ПРОПАГАНДНЕ ОПЕРАЦИЈЕ У КОНТЕКСТУ УГРОЖАВАЊА НАЦИОНАЛНЕ БЕЗБЕДНОСТИ

Сажетак

Кључна карактеристика међународних односа је њихова анархичност, а у савременим условима то се манифестује непрестаним извођењем психолошко-пропагандних операција једних актера против других. Психолошко-пропагандне операције представљају прву фазу у припреми и спровођењу хибридног рата, али оне могу бити и циљ сам по себи. Током времена, постале су незаобилазно средство осигуравања националне безбедности, која се остварује елиминацијом или релативизацијом конфликтних интереса супарника (непријатеља) против којих су психолошко-пропагандне операције усмерене. Нови моменат у примени овог концепта представља развој и (зло)употреба вештачке интелигенције. Капацитети вештачке интелигенције за осмишљавање и реализацију психолошко-пропагандних операција далеко превазилазе људске потенцијале. То може увести међународне односе у етапу сталних и трајних сукобљавања извођењем континуалних психолошко-пропагандних операција и започињањем хибридних ратова који се никада неће завршити. Још једна опасност налази се и у тврдњи креатора вештачке интелигенције да она има своју логику, те да ће због тога у будућности све мање зависити од задатих инпута. У анархичном окружењу вештачка интелигенција може самостално индуковати и генерисати ратове водећи непредвиђене психолошко-пропагадне операције. Закључак аутора је да спој традиционалне анархије и нове технологије угоржава националну безбедност држава, али индиректно и глобалну безбедност, те да је због тога

нужно размишљати о различитим начинима ограничавања употребе вештачке интелигенције у међународним односима.

Кључне речи: вештачка интелигенција, хибридни рат, психолошко-пропагандне операције, национална безбедност, међународни односи, анархија.

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METAVERSES, ARTIFICIAL INTELLIGENCE AND CHALLENGES TO PSYCHOLOGICAL SECURITY

Resume

Today, the rapid development of the fourth industrial revolution and the emergence of the latest digital technologies leads to the gradual creation of a fundamentally new "socio-technological" reality – a metaverse that will permeate all levels of society and human existence: socio-social relations, economics, political processes, thus influencing the psychology of human consciousness and perception of reality.

The existence, full functioning of this new "Reality 2.0" and its convergence with the physical world will be provided by a wide range of new technologies, one of which is "advanced" artificial intelligence (AI) systems, which will underlie the basis of the creation of the metaverse architecture itself and be used for 3D modeling, creation of digital objects, design and expansion virtual worlds-clusters, data analysis, etc.

At the same time, metaverses implementing technologies of full immersion in virtual reality are able to release conflict potential and create a wide range of opportunities for ultimate antisocial impact on

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social processes, social groups and individuals through specific forms of malicious use of AI in order to undermine psychological stability (PS).

The article will consider specific technologies of influencing the consciousness of users through AI. Special attention will be paid to how the use of AI systems in metaverses can produce local and global threats to psychological stability, and through that to political, economic, military institutions.

The relevance of the paper is due to the growing popularity of the phenomenon of metaverses and growing number of users ("meta-citizens"), increased investments in this area and the development of AI technologies that make the experience of being in the metaverses more immersive, which in turn makes users most vulnerable to HT psychological influences. Today, at the level of states, international institutions and global forums, the importance of regulating the new reality and creating a safe metaverse is being stated, which makes it necessary to study possible options for negative effects on consciousness through AI technologies and consider ways to counter these threats.

At the same time, there is a lack of studies in this area that negatively affects the level of expert assessments, the effectiveness of decision-making and, more broadly, the level of awareness of the general public about the nature and size of emerging threats. The paper aims to close this gap whenever possible and contribute to a broader discussion on this hot issue.

Key words: metaverses, malicious use of artificial intelligence, psychological security, social polarization, digital discrimination.

INTRODUCTION

The rapid development of the fourth industrial revolution and the emergence of the latest digital technologies today leads to the gradual creation of a fundamentally new "socio-technological" reality – a metaverse that will permeate all levels of society and human existence, and will lead to a qualitative change in the economy, commerce and trade, socio-political relations, recreation and entertainment, etc.

The metaverse as a disruptive technology puts humanity on the threshold of a new round of its evolution and opens the era of a new

"Reality 2.0" – a "hybrid" existence of man, when his "physical" existence will be inextricably linked with the virtual, which has become an integral part of it. The metaverse will lead to the intrusion of the virtual world into the physical world and a change in the perception of both physical and virtual reality.

At the same time, today various artificial intelligence (AI) systems are developing with unprecedented dynamics. AI technologies are capable of provoking systemic changes in all spheres of public life – domestic and foreign policy, economics, science, production, management, national and global security (including psychological), etc., and lead to new challenges the "traditional" existence of humanity. In particular, specific technologies for the malicious use of AI (MUAI) in order to undermine psychological stability are being intensively developed (Pashentsev 2023). Already existing "social" AI algorithms designed to automate the performance of "social" tasks have a significant negative impact, but in fact they often reproduce social prejudices and discriminate against certain categories of people.

The convergence of two disruptive and emergent technologies – AI and metaverses – is capable of creating fundamentally new existential challenges and threats to the established public order and security – both at national and global levels, through influencing the mass consciousness. Large-scale application of AI systems in metaverses, providing a qualitatively new experience of immersive interaction, can produce threats to global psychological stability. Metaverses implementing technologies of full immersion in virtual reality are able to release the conflict potential of various malicious actors and provide a wide range of opportunities for ultimate antisocial impact on social processes, social groups and individuals through specific forms of MUAI in order to undermine psychological security (PS).

This article is devoted to the assessment of the main characteristics of metaverses that allow the use of specific MUAI technologies, the identification of specific forms of MUAI in metaverses for the purpose of ultimate antisocial impact on social processes, social groups and individuals. The article also examines how AI algorithms in metaverses can increase polarization and lead to a rise of acute social conflicts. Special attention is paid to the challenges of international psychological security.

Today, at the level of states, international institutions (including the UNO Security Council) and global forums, the importance of regulating the new reality and creating a safe metaverse is being stated (Nichols

Michelle 2023; World Economic Forum 2023; Council of the European Union 2022), which makes it necessary to study possible options for negative impact on consciousness through AI technologies. However, at its core, the current numerous discussions of the challenges and threats produced by the metaverse (Haq et al. 2022) do not systematically consider the specifics and parameters of the PS threats, by means of MUAI. The purpose of this article is to at least partially close this gap and serve to develop a broad discussion on a problem that is fraught with serious risks for society.

THE NATURE OF METAVERSES AND THE ROLE OF ARTIFICIAL INTELLIGENCE IN THEIR FORMATION

In order to analyse the opportunities that metaverses provide for AI for the purpose of ultimate antisocial impact on social processes, target social groups and individuals, it is necessary to consider the "nature" of metaverses, identify their key characteristics and determine the role of AI in the formation of metaverses.

Due to the complex nature of the phenomenon itself, there is currently no single, universally recognized definition of the term "metaverse". In the absence of a unified concept, we can try to describe it as a global, decentralized, and constantly functioning virtual space in real time (or even several interconnected virtual spaces), providing users (various subjects – individuals, companies, government institutions, etc.) a unique experience of immersive interaction through "digital interfaces" (avatars, digital offices and representative offices) with other actors, digital assets, virtual worlds, events and processes through "extended reality" (XR) technologies. Extended reality rolls together similar acronyms like VR (virtual reality), AR (augmented reality), and MR (mixed reality). While virtual reality is a fully simulated reality, augmented reality adds some elements of the virtual world to the physical world. MR combines AR and MR. (Rijmenam 2022).

The metaverse covers different spheres of social life (entertainment, work, educational process), and thus it can realize a variety of opportunities for social, political, economic, professional and personal interaction. Today, new concepts are emerging that expand the concept of the metaverse to a fundamentally new understanding of it as a hybrid reality – the convergence of virtual and physical spaces with their closest interpenetration.

Such a hybrid reality is characterized by parallel extrapolation of immersive experience from one world (physical) to another (virtual) and vice versa when users receive an immersive experience in one world, and the result of this is simultaneously reflected in another. It also implies the use of a certain object that exists simultaneously in two worlds: with the help of extended reality devices, users can interact with an object in one world, and the result of its use will be saved and "transferred" from one world to another with preserved characteristics. Moreover, it is assumed that the need for the physical existence of some objects in the physical world will disappear, and they will gradually be replaced by digital "holograms" with the possibility of projection, which can also be interacted with using extended reality devices.

The functioning of the metaverse with the specified characteristics and its convergence with the real physical world will be provided by a whole range of technologies, including AI, blockchain, NFT (non-fungible token), virtual and extended reality technologies, 5G networks, etc. (Colajuta 2022).

One of the main drivers of the creation, development and functioning of metaverses will be AI systems based on machine learning technologies, computer vision, etc., which will make the new space of the metaverse realistic and fully functional.

One of the most promising areas of AI use in metaverses is 3D modeling and creation of digital models of any objects, including the design and expansion of virtual worlds–clusters, creation of the most accurate digital copies of objects of the physical world, etc. AI will be used to analyze images, simulate high-precision and dynamic avatars of users in metaverses, display facial expressions, various features of appearance, emotional manifestations, etc. (Huynh-The et al. 2023). AI will also be used for processing and recognition of speech and text, their conversion, instant translation (Huynh-The et al. 2023) to ensure truly global communication. Finally, it will be used to process and analyse huge amounts of data generated and accumulated in the metaverse, which will require enormous speeds and computing power, which will be provided by AI.

AI systems will also be used in metaverse immersion devices (Huynh-The et al. 2023), which means virtual reality headsets, special gloves for tactile sensations and even neural interfaces – with the help of special sensors, AI will be able to read and analyse muscle signals and brain signals in order to "predict" what actions the user wants to perform (XRToday 2023).

XR devices (or headsets) will serve as the "gateway" to enter the metaverse, which will immerse us in the virtual space and provide a unique full-fledged experience of presence and interaction with other actors and digital objects. At the same time, it must be remembered that XR devices will ensure the convergence of the virtual and physical world, allowing us to supplement the real world with objects from the metaverse and use real world objects in the metaverse.

Looking into the long–term perspective, it can be assumed that it is not "external" devices – virtual reality headsets and tactile gloves – that can ensure the presence in the metaverse, but implants in a person – muscle (in the arm), or even neuroimplants (Tangermann 2022) reading brain signals. They will provide real synchronization of virtual and physical spaces, allowing you to instantly connect to the metaverse interface from any location and making digital reality a permanent and integral attribute of human life.

Thus, AI systems will become an integral part of the architecture of the metaverse formation, and will ensure the functioning of a complex structure of interaction between its individual subjects and elements, which will subsequently enable their use for psychological impact.

THE USE OF ARTIFICIAL INTELLIGENCE TECHNOLOGIES IN ORDER TO UNDERMINE PSYCHOLOGICAL SECURITY

Metaverses implementing the mechanisms of immersion in virtual reality will provide a wide range of opportunities for the malicious influence on individual and mass consciousness and human activity, social processes, information and cognitive environment.

It is important to understand that the deeply invasive level of impact in the metaverses is provided by the very global nature of the metaverses, which will immerse users in huge amounts of information, increasing the intrusion of the ideas being introduced into consciousness by malicious actors.

The range of technologies for influencing mass consciousness in the metaverses through AI is very wide.

Digital "avatars" and deepfake technology. Deepfake technology based on AI allows, through the synthesis of images and the voice of a particular person, to create "fake" videos allegedly with its participation. Today it is rapidly spreading and has already been "tested" on famous

politicians and celebrities. It is assumed that as the technology improves, it will be used to influence the mass consciousness.

Metaverses can provide a new embodiment of this technology. The key tool through which people will interact with each other in virtual reality is avatars, the realism of which will affect the experience of interaction in the metaverse. Here, AI is planned to be used to simulate realistic images and display expressions and facial features, emotions, etc.

Thus, the probability of creating realistic digital avatars of any person (especially famous ones) with the help of deepfakes, which will not actually belong to this person, increases significantly. For example, with the help of AI, it will be possible to simulate the avatars of politicians with the highest accuracy, which will copy the speech style, facial expressions, intonation, etc. inherent in a particular person. These deepfake avatars can be used for malicious purposes – ranging from demonstrating obscene behaviour and undermining the reputation of an individual to global impact on the mass consciousness, political provocations and undermining the political situation. Moreover, deepfakes technology will allow creating a completely new digital personality in the metaverses from scratch, which does not really exist, but which can be used to disseminate the necessary information, values, ideas – it can be the president of a new "meta-state", a religious sect, an opinion leader, etc.

"Digital people". "Digital people" will be "non-player" characters and will be used as 3D versions of AI-controlled chatbots in metaverses, with which users will be able to interact with in order to consult and get answers to questions (XRToday 2023). Here, MUAI can be realized through the use of "data poisoning" technology, when a chatbot or other program based on machine learning algorithms can be "corrupted" and retrained to perform functions not inherent in them. Similarly, "digital people" in metaverses can be "retrained" in order to carry out malicious influences, such as propaganda, broadcasting destructive values into the consciousness of users, spam. Moreover, the "digital person" himself can be "intercepted", hacked and repurposed to carry out his freelance work and create negative effects.

In metaverses, **targeted automated profiling** using AI and machine learning will also find its application – drawing up psychological portraits and classifying target Internet users based on the analysis of open (as a rule) data from social networks, Internet resources, search queries, etc. Profiling is used to identify the psychological characteristics of target individuals, their emotional background, and even predict future

psychological states in order to subsequently exert the necessary influence and motivate them to perform certain actions (Bilal et al. 2019; Guembe et al. 2022; Zouave et al. 2020). The use of profiling in the metaverse will allow attackers to set up targeted "destructive" content for a specific user, broadcast certain information in the form of interactive advertising and messages, which can maximize the psychological effect.

The technology of **targeted image transformation**, in which AI is used to transform ordinary images into "sinister" ones, can also become widespread in the metaverse. However, in the case of the metaverse, these will be not just static images, but also digital assets, objects, and even the user's "workspace" and entire worlds (in the creation of which AI will be used). In combination with profiling, the targeted transformation of images in the metaverse can make the surrounding digital space ominous and unpleasant for the target user, which can cause psychological discomfort and negative feelings.

Metaverses will provide new opportunities for implementing the technology of "**data poisoning"**, when the algorithm based on machine learning is actually "trained" on deliberately destructive, erroneous or unrepresentative data (Bazarkina and Pashentsev 2020), which subsequently is fraught with its incorrect operation – incorrect analysis of incoming information with subsequent generation of distorted results. So, in 2016, the Microsoft Tau chatbot, learning in a real environment, became a misanthrope in less than a day. An unintentionally "poisoned" algorithm for automated classification of skin cancer, due to incorrectly set patterns, found signs of melanoma where there were none – learning from images with special markings, it began to assign the appropriate status to any images of the skin where there was a similar marking (Narla et al. 2018).

Thus, any machine learning-based program (not just digital humans) can be specially trained to carry out destructive actions. In this regard, metaverses provide an amazing immersive and efficient environment for learning algorithms. For example, specialists from the Darmstadt Technical University together with Intel labs decided to train unmanned driving algorithms in the famous Grand There Auto V game, as they considered that real road conditions were perfectly modeled in it (Tilley 2017).

It can be assumed that in a similar way in the metaverse it will be possible to create separate specialized clusters with a certain set of "surrounding" data. It will be possible to specifically simulate the

necessary conditions in order to train AI algorithms for destructive behaviour, in this case, to use specific AI technologies for psychological destabilization. These technologies will then be used in both the metaverse and the real world.

Thus, metaverses will allow to train chatbots, "digital people", any other "socially-oriented AI algorithms"[1] based on a certain set of necessary data, not just "pumping" these algorithms with certain ideological, political, value and other attitudes, but also teaching them specific mechanisms of influence and implementation of socio-psychological engineering.

The main functional difference between learning algorithms in metaverses will be manifested in the fact that digital reality is a fundamentally different immersive learning environment, where much more qualitatively different data will be[2]. Moreover, metaverses will allow AI-algorithms to be trained in real time directly on users (more precisely on data generated by users). For the algorithms themselves, this experience will be more immersive (as in the case of unmanned driving algorithms, which were first supposed to be trained on "virtual" roads that simulate a real road situation). Thus, in the metaverse, certain actors will be able to simulate an "aggressive environment" and set deliberately "poisoned" negative patterns for the deliberate training of certain algorithms for destructive actions of a psychological nature.

Metaverses will produce opportunities for new forms of psychological influence – for example, through "**digital resurrection".** Already today, AI systems are used to create "digital images" of a deceased person – neural networks based on machine learning can synthesize not only the appearance and voice of a person, but also analyse the content of preserved messages, texts, audio-video recordings in order to create, for example, a chatbot that can simulate the communication style of a person using her memories (the so-called "evolution of memories") (Holmes 2023).

These technologies will receive a new degree of embodiment in the metaverse, including for malicious use. Created with the help of neural networks and machine learning, a full-fledged 3D digital image of the deceased with an imitation of a personality will be used for targeted psychological impact on a particular person in order to

[1] By "socially-oriented algorithms" we understand algorithms that are used, as a rule, to carry out certain social tasks and functions – both in social networks and in public life (the relevant examples will be given further in this article).

[2] This will be discussed in more detail later.

encourage him to perform certain actions. Such an impact can even lead to mental deformation in people with unstable emotional and volitional backgrounds.

Thus, the use of the AI technologies described above in the metaverse in order to influence consciousness can create a huge range of possible effects and consequences. Since metaverses will represent such a full-fledged form of digital reality, in which users will "exist" in this digital space and literally "in the stream" of data, they open up absolutely colossal demonstrative opportunities for broadcasting information, interactive advertising, agitation, propaganda, etc. (Kaspar'yanc 2022; Kim 2021). In this regard, the metaverses represent an excellent platform for the formation and consolidation of a certain agenda. It seems natural to use AI technology in order to spread reactionary ideologies, reproduce antisocial patterns of behaviour, etc. The "digital people" (3D chatbots), information displays, artificial intelligence-generated news, and any other technologies of information production and transmission can be used to create the necessary moods among the mass of users, escalating psychological tension. in society. So, for example, "digital people" in metaverses can be attracted not only to implement useful functions, but also to carry out malicious influences, such as propaganda, broadcasting destructive values into the consciousness of users, demonstrating spam. AI will make the behaviour of a deepfake, chatbot/digital person or hacked avatar as anthropomorphic as possible. At the same time, intelligent automated profiling will configure any MUAI tool to target individual target personalities or specific audiences.

And if there are certain restrictions on AI in the "legal" metaverses, then it can be assumed that much more sophisticated forms of **MUAI within the darkverse** will appear in the darknet. On the other hand, further degradation of public institutions, high social and property polarization, acute inter-imperialist rivalry can form quite legal darkverses under the plausible shell of the metaverse concept.

THE METAVERSE AS A GLOBAL IMMERSIVE SOCIAL LABORATORY: NEW OPPORTUNITIES FOR INTELLIGENT PROFILING AND THE FORMATION OF AN INFORMATIONAL "META-SPACE"

Globally, metaverses are capable of producing even more dangerous challenges to psychological security and socio-political stability, which

will be both purposefully expressed and tacit (unintentional) in nature, and affect mass consciousness on a global scale.

The main challenges will be related to the very immersive nature of the metaverses, which will represent such a full-fledged form of virtual reality, in which users will literally be immersed in digital space (a kind of "digital synthetic ether"), "exist" in the data stream, and interact with various subjects, objects, and even the content itself (Sebekin and Kalegin 2023). These information flows will take on a larger scale, continuous and broadly encompassing nature, and the metaverse will provide an opportunity for their more effective intrusion into the consciousness of users. This opens up truly enormous opportunities for various forms of psychological influence through AI technologies. From this point of view, metaverses raise with renewed vigor the question of the "participation" of AI algorithms in the formation of the content surrounding users and the global information space as a whole.

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AI algorithms are already present in our daily life today – they are embedded in existing digital platforms (social networks, online stores and applications) for processing and analysing user information collected by digital platforms in order to form personalized content[3]. Globally, AI systems integrated into many digital platforms and social networks

[3] This is how the video feed in the famous TikTok application, the Facebook content feed, contextual advertising and store offers work.

form our information space and create a kind of "information bubble" around us, thereby in a latent way, but globally, at a subconscious level, defining our worldview and consciousness – political, consumer, and sometimes moral and spiritual. In fact, AI algorithms control and censor increasingly large flows of information, learning from user experience and de-facto making decisions for users regarding the content consumed, while users themselves are guided by these decisions without a critical attitude, even if they are not always correct.

Metaverses significantly increase the degree of intrusion of the information field formed by AI into personal and mass consciousness. By immersing themselves in a metaverse filled with content and experience, and making it an integral part of their social existence, users find themselves among huge streams of meta-information, most of which will be generated, selected and controlled by AI algorithms (integrated into metaverses, or into various digital platforms in metaverses).

The use of AI technologies in metaverses will allow massively shaping the information space surrounding users in real time, adjusting content and the right moods, placing people in the literal sense of the word in a "sterile" informational "meta-bubble". This will make it possible to form their worldview, consciousness, and view of social problems, and will make the walls of this bubble thicker and stronger (this will happen both "unconsciously" (the algorithms have learned this way) and intentionally). The information space of the metaverses, formed by AI, is able to further strengthen the growing polarization in society on topical issues of politics, economics, religion, social development, etc. Thus, AI will make the information space fragmented, adjusting the content to specific target audiences, and convincing groups of the correctness of their beliefs, thereby significantly reducing the level of critical thinking in general. Personalization of content, which is usually presented as a benefit, can actually have strong consequences in the form of polarization and disintegration of society.

The other side of the new possibilities of using AI in metaverses is associated with the growth of both the quantity and quality of data. At the moment, AI integrated into existing digital platforms – social networks, online stores, search engines, applications, etc. (which are essentially digital ecosystems) – already today gets access to a "classic" set of user data: text, audio and video, etc., in order to analyse preferences and form personalized content.

Metaverses can revolutionize the field of data and its generation, processing, transmission and analysis. Here, colossal arrays of data

("mega-large data") will be generated, accumulated, processed, stored and analysed almost every second in real time. But most importantly, it will be qualitatively different types of data – a new generation of data.

It won't be just text, audio and video. It will be the surrounding world of the metaverse itself, multidimensional digital objects (including "buildings" or individual clusters), data about events, impressions, etc. But most importantly, metaverses will collect and accumulate new types of user data that can be accessed by certain AI algorithms. Advanced devices for immersion in virtual reality and providing an immersive experience of interaction with AI technologies integrated into them will be able to read and analyze a wide range of user data: muscle signals, eye movements, facial expressions, speech tone, location, human physiological indicators (respiratory rate, pulse) and even neural (brain) impulses (Sharma 2023). For example, Meta is developing an augmented reality bracelet with an electromyography function that can read brain impulses and convert them into computer commands (Bastian 2022). Most of the metaverse devices being developed (for example, wearable devices), cameras, as well as modern gaming devices are equipped with AI gesture recognition technologies.

One way or another, but the metaverse will become a global platform for accumulating a huge amount of data, and each user and other entities in the metaverse – companies, government institutions, non–profit associations, unofficial movements, etc. – in the metaverse will be a kind of generators/accumulators of certain data. This will enable certain intelligent systems to learn from this data and analyze it in real time (as it happens today in social networks and digital platforms, but on a smaller scale).

In this regard, metaverses will raise with renewed vigor the question of ethical problems of the introduction and use of AI systems, namely, how they inadvertently (or intentionally) discriminate against certain groups of people, censor content and covertly form the information space. In reality, bias is already penetrating AI algorithms based on machine learning. Learning from a huge amount of data, which sometimes may turn out to be unrepresentative, and even incorrect and distorted (and unintentionally), they begin to produce biased results and successfully reproduce social prejudices existing in society, sometimes rooting and even deepening them, which leads to explicit discrimination against certain groups of people.

The Grade algorithm, which was used at the University of Texas at Austin from 2013 to 2020 and selected applications for a doctorate in computer science, "refused" not only people who did not get a perfect score, but also discriminated against entire categories of people based on gender and race. Grade, as it turned out later, was trained on unrepresentative data – the results of previous decisions on awarding degrees, according to which women, black and Latino people were not equally represented in the field of computer science. As a result, these groups were discriminated against (Burke 2020). In addition, the algorithm was guided by words-patterns – mentions in motivational letters of elite educational institutions, the words "best", "award", "Doctor of Philosophy", etc. (Burke 2020).

The algorithm used by Amazon to analyse candidates' resumes when applying for a job gave preference to men rather than women (since it was trained on the results of previous interviews, according to which the majority of employees in the company were men) (Dastin 2018). And a more illustrative example is in the UK, the AI algorithm used by the UK's Office of Qualifications and Examinations Regulation to evaluate the results of final exams turned out to be biased against college graduates from poor families, underestimating the scores of 40% of students (Porter 2020). The results of the exams generated by a "biased" algorithm led to demonstrations outside the building of the Department for Education of England, and were eventually cancelled. This is a vivid example of how a biased algorithm at the national level destabilized the socio-political situation and almost affected the fate of individual people.

Metaverses with their immersive capabilities, in which AI will be used everywhere (also integrated into digital platforms "inside" metaverses), can exacerbate the ethical problems of their implementation and use, as well as create conditions for scaling and deepening the social prejudices reproduced by AI – both in the metaverse itself and in the real world. Learning in metaverses on a huge amount of qualitatively different data, which can often turn out to be unrepresentative and unreliable, AI algorithms can become even more biased. They will also reproduce social and other prejudices in the metaverse, discriminate against entire groups of people, further reinforcing prejudices and polarizing societies (even if the operators themselves and the creators of certain specialized AI algorithms did not pursue such goals). The metaverses will become not just a mirror of the "social" and political diseases developing in society, but also to some extent their source.

In certain situations, in which an AI trained on certain data will be directly applied and having "learned" some information about a

person, it can deny users access to any event, service, acquisition of digital assets, unreasonably underestimate the user's "metastatus" (for example, in the case of any competitive selections) and etc. All of this can have an effect in the real world.

Already today, the global solution to the problem of the penetration of bias into algorithms is experiencing certain difficulties. In the metaverses, this intrusion of bias can take even deeper roots and be aggravated by a possible ethical-legal and legislative vacuum, which at first (and perhaps always) will not be filled. This will make controlling AI even more difficult.

All this will give completely new opportunities for automated target profiling using AI in metaverses. AI in the interests of certain actors will, based on the analysis of new data, create a kind of 5D-model of users and carry out large-scale monitoring of their behaviour, determine the psychotype, emotional background, fears, check the reaction to certain types of stimuli (unwanted content, events, experiences, etc.) in order to subsequently use this information against the users themselves.

Based on all this, we can conclude that, if desired, metaverses (or certain clusters in metaverses) will be **global social laboratories**. What does it mean?

Metaverses as immersive virtual spaces, the main "capital" of which is human capital – users and the digital products they create – represent an excellent field for conducting "social experiments", where broad social groups will be a kind of experimental subjects.

In this regard, a distinctive feature of metaverses is the fact that the globality and inclusiveness of these vast virtual worlds make it possible to influence not just specific users, but also large target groups. Metaverses bring the above–described intelligent targeted automated profiling to a fundamentally new level, giving rise to its forced type – **global social profiling.**

Metaverses make it possible to use advanced intelligent systems to analyze certain data, not just individuals, but a critical mass of information about large target groups. Intelligent profiling in metaverses will allow interested subjects to analyse behavioural patterns, highlighting the general and special, thereby building socio-psychological maps of target groups. In the future, this will make it possible to effectively manipulate public consciousness, strengthen the necessary agenda and trigger the necessary (and probably destructive) socio-social processes. The use of specific technologies in metaverses on a much larger scale and

with better efficiency will allow modeling, generating and cultivating certain social prejudices, fears, phobias, etc. in "metaverse laboratory conditions", which people will massively extrapolate into the real world. Certain actors can, with the help of AI technologies, be able to adjust public consciousness, simulate the situation in the metaverse in order to observe how target groups will behave under certain psychological influences, and even stimulate them to certain actions.

In the conditions of hybrid reality (interpenetration of the physical and virtual worlds, when the experience in the metaverse will be reflected in the real world), obtaining realistic immersive experience and immersive communication, it is possible to spread the phenomenon, which the authors of this work designate as **cross-extrapolation of immersive experience (CEIE). CEIE** assumes that the psychological, social and political effects of the impact of specific AI technologies in the metaverse will be massively "transferred" to the real world, reflecting on the existence of social systems. This phenomenon can take various forms and relate to many factors:

1. The agenda and information on any important political and economic issues fixed in the metaverse can be massively transferred by users to the real world. As already mentioned, this will be reflected in the polarization of society and may even lead to the destabilization of social systems.

2. The effects of events and processes occurring in the metaverse can be reflected in the real world. For example, a demonstration in front of a digital representation of a government agency in the metaverse may lead to an appropriate government response. Actions of a protest and even provocative nature in a digital representation, office, store and event can also lead to retaliatory measures in the real world. Similar consequences may follow the incorrect behaviour of the "deepfake" of a famous person.

3. The data obtained about users in the metaverse can have an impact on their lives in reality. In the metaverse, based on automated profiling, a person can be assigned a certain status, which "social" algorithms and structures using them will be guided by in making decisions concerning a person in the real world. And vice versa – information from the real world can influence a person in the metaverse.

4. Extrapolating discrimination. AI algorithms trained on unrepresentative or distorted data can reproduce social prejudices both in the metaverse and in the "physical" world. This can lead to exponentially increased discrimination of entire groups and categories of people in both realities.

5. The personal negative experiences that users will receive in the metaverse can be extrapolated by them into the real world and affect their lives.

The situation of the so-called "immersive psychological load" will be aggravated by the fact that with the development of metaverses and their intrusion into physical reality and social life, a fundamentally new generation of people will appear in their thinking, existing in parallel in two worlds – physical and virtual (meta). It will be a completely different psychology of perception of immersive virtual reality and the processes that occur there, which means that users will extrapolate and transfer all the negative experience of the metaverse and the psychological effects occurring there to the real world. And in the conditions of convergence of the real and virtual worlds, when some unpleasant digital experience complements the physical space, such an impact can be pronounced destructive.

ARTIFICIAL INTELLIGENCE IN THE METAVERSE: CHALLENGES OF INTERNATIONAL INFORMATION SECURITY

The key feature of metaverses is decentralization, which makes it impossible to have any single and complete control over it (and, in part, over the processes that take place in it) from any actor – corporations, governments, and even operators and companies that create metaverses. This situation turns metaverses into a new "Wild West" – a space capable of releasing conflict potential and becoming an excellent platform for realizing the interests of a wide range (including malicious) actors. These actors have their own motivation and intentions, and will be clearly interested in using the immersive advantages of metaverses to psychologically influence target audiences through AI for certain purposes (Sebekin and Kalegin 2023). Among them the following actors can be distinguished:

1) Metahackers and hacker communities;
2) Cyber criminals, cyber terrorists, destructive currents;
3) Corporations seeking to gain certain levers of influence on the economy and even political power;
4) States (primarily reactionary aggressive regimes) and "independent" entities working for them.

All these factors differ in terms of motivation, the level of technical equipment, access to resources and the scale of the audience they will be able to influence. If meta hackers are able to influence a certain circle of people, then meta-criminals may have somewhat more significant resources. The goal of the meta-criminals will be to discredit individuals or groups, spread destructive information, fraud and extortion, as well as the theft of digital assets (valuable digital objects) and financial resources (cryptocurrencies) through social engineering (Europol 2022). It is impossible to exclude the emergence of cyberterrorists, destructive currents and "metasects", whose goals will be to use the capabilities of metaverses to spread destructive ideas, recruit and attract supporters to their ranks.

States and corporations will have much more significant resources for MUAI in the metaverse, and their impacts will differ in professionalism, complexity and methodicality. Only the most advanced biggest states and corporations will be able to use AI for the purposes of psychological influence for a long time and in relation to a large-scale audience (Sebekin and Kalegin 2023).

It is in the interests of large "players" to form an information space through AI and large–scale impact on large target groups. Individual "reactionary" states may be directly interested in developing metaverses and building up their respective capabilities as asymmetric tools in order to promote and consolidate the necessary agenda, broadcast certain values, undermine the image and authority of other states. The use of AI for psychological purposes in the metaverse can become one of the most powerful ways to promote its influence on the world stage by influencing the mass consciousness.

For states, metaverses can become another powerful lever of influence on world politics and political processes.] Corporations, on the other hand, will be interested in obtaining certain levers of influence on the economy in the metaverse through psychological influence on users. Companies can take advantage of new forms of advertising in order to create unfair competition. For example, the business lobby will be interested in promoting its brand and products. Transnational corporations will have new opportunities to form a global political environment that meets their interests.

Thus, metaverses are able to act as an effective platform for the formation and consolidation of a certain agenda. Interested actors can implement and configure large-scale AI algorithms in metaverses to form

information spaces in the desired target societies in order to polarize, divide and disintegrate them, and do it most effectively. The use of specific AI technologies for the purpose of psychological destabilization of target groups is quite obvious in the context of conducting information warfare, which in the conditions of meta-spaces can get a much larger scale and produce a more significant effect.

AI as a predictive weapon (Pashentsev 2016, Pashentsev 2017) can be used on a global scale to monitor target communities and even nations. Intelligent systems can analyse behavioural patterns and identify negative trends in the mass consciousness, thereby compiling a global cognitive psycho-map of target communities. Then the prognostic weapon based on the data obtained can be used not just for the prediction of the possible behaviour and psychological state of these communities in the future, but also for modeling possible negative scenarios – setting moods and agendas through the entire spectrum of specific technologies described above.

In other cases, the use of specialized "social" AI algorithms based on machine learning in metaverses will help interested actors to massively spread certain values and ideologies. Having trained the algorithm on certain data, it will be able to carry out effective propaganda, customize targeted content for specific user audiences.

The above–described situations of the possible use of MUAI and the implementation of the corresponding negative scenarios are aggravated by the extremely limited possibilities of attribution (identification of the source) of the malicious actor due to the key features of the metaverses – their decentralization and the ability to ensure anonymity.

CONCLUSION

The convergence of two disruptive and emergent technologies – AI and metaverses, the large-scale application of specific forms of MUAI in metaverses, providing a qualitatively new experience of immersive interaction, can produce threats to global psychological stability and through that to national and global security.

If today social networks, applications and the Internet as a whole serve as the main field-the basis of such influence, then metaverses represent a fundamentally new platform within which such interaction with the help of AI will be significantly scaled and will become extremely effective.

The main danger of AI in metaverses in order to undermine the PS is that metaverses, due to the creation of an atmosphere of complete immersion in virtual reality and new forms of "digital interaction", bring to a completely new level the possibilities of mass impact of AI technologies on the collective consciousness of users. Informational and psychological destructive influence in the metaverses may well have corresponding consequences in the real world – and lead to psychological tension, discontent, and "metaconflicts" and problems may result in the physical world.

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МЕТАВЕРЗОВИ, ВЕШТАЧКА ИНТЕЛИГЕНЦИЈА И ИЗАЗОВИ ЗА ПСИХОЛОШКУ БЕЗБЕДНОСТ

Сажетак

Данашњи брзи развој четврте индустријске револуције и појава најновијих дигиталних технологија доводе до постепеног стварања фундаментално нове „друштвено-технолошке" стварности – метаверзума који ће прожимати све нивое друштва и људске егзистенције: друштвено-социјалне односе, економију, политичке процесе, утичући тако на психологију људске свести и перцепцију стварности.

Постојање и пуно функционисање ове нове „Стварности 2.0" и њено приближавање физичком свету биће обезбеђено широким спектром нових технологија, међу којима су и „напредни" системи вештачке интелигенције (АИ), који ће бити у основи креирања саме архитектуре метаверзума и користити се за 3Д моделовање, креирање дигиталних објеката, пројектовање и проширивање виртуелних светова-кластера, анализу података итд.

Истовремено, метаверзови који имплементирају технологије потпуног урањања у виртуелну стварност у стању су да ослободе потенцијал конфликта и створе широк спектар могућности за крајњи антисоцијални утицај на друштвене процесе, друштвене групе и појединце кроз специфичне облике злонамерне употребе АИ у циљу подривања психолошке стабилности (ПС).

У чланку ће се размотрити специфичне технологије утицаја на свест корисника путем АИ. Посебна пажња ће бити посвећена томе како употреба АИ система у метаверзима може да произведе

локалне и глобалне претње психолошкој стабилности, а самим тим и политичким, економским, војним институцијама.

Рад је актуелан из разлога растуће популарности феномена метаверзума и раста броја корисника („мета-грађана”), повећаног улагања у ову област и развоја напредних технологија које чине искуство боравка у метаверзима имерзивнијим, што заузврат чини кориснике најрањивијим на психолошке утицаје АИ технологија. Данас се на нивоу држава, међународних институција и глобалних форума истиче важност регулисања нове реалности и стварања безбедног метаверзума, због чега је неопходно проучавање могућих негативних ефеката на свест путем АИ технологија и разматрање начина на који се супротставити овим претњама.

Истовремено, приметан је недостатак истраживања у овој области, што негативно утиче на ниво стручних процена, ефикасност у одлучивању и ниво свести шире јавности о природи и величини новонастале претње. Рад има за циљ да употпуни ову празнину и допринесе широј дискусији о овом актуелном питању.

Кључне речи: метаверзови, злоупотреба вештачке интелигенције, психолошка сигурност, друштвена поларизација, дигитална дискриминација.

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УПОТРЕБА ВЕШТАЧКЕ ИНТЕЛИГЕНЦИЈЕ У РУСКО-УКРАЈИНСКОМ РАТУ

Сажетак

Руско-украјински сукоб својим геополитичким значајем превазилази регионалне границе, због чега је неминовно да о њему говоримо као о сукобу глобалних размера. Директна и/или индиректна инволвираност бројних држава света у овај сукоб, посебно у виду војно-техничке, технолошке, привредне и економске умешаности, наведено и потврђује. У фокусу нашег рада је војно-технички аспект, односно употреба вештачке интелигенције и њен значај за садашњост и будућност ратовања. У првом делу рада се појмовно одређује вештачка интелигенција, а потом се елаборира употреба вештачке интелигенције у војној индустрији, као и њен значај у промени конвенцијалног начина ратовања. Напослетку, аутори се баве употребом вештачке интелигенције на украјинском ратишту, како би указали на нову форму трке у наоружању.

Кључне речи: вештачка интелигенција, дронови, роботи, Русија, Украјина, руско-украјински сукоб, геополитика, безбедност

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УВОД

Руско-украјински сукоб почео је 24. фебруара 2022. године, што је кулминација вишегодишње „тихе" нетрпељивости између две државе, посебно након „Евромајдана" 2013. и „Мајданске револуције" 2014. године. Након отпочињања „специјалне војне операције", како ју је кодирао руски председник Владимир Путин, свет је ушао у фазу динамичне међународне трансформације из униполаризма у мултиполаризам, са тенденцијом да у сукоб уведе и друге државе света.[3] И пре почетка сукоба, јасно се уочавала „блоковска" подела када су у питању руско-украјински односи, особито по питању подршке једној, односно другој страни (Stefanović-Štambuk and Popović 2022; Bifolchi 2022). У тој подељености се, несумњиво, уочавају геополитички разлози који имају вишедеценијски континуитет и који се односе не само на Украјину, већ на целокупан постсовјетски простор (Глишин 2023; Деспотовић и Глишин 2023; Деспотовић и Глишин 2021; Гајић и Рајић 2022). Наведена подељеност пробудила је духове прошлости са обе стране „гвоздене завесе", због чега је сукоб, који је на почетку изгледао као да ће трајати кратко, заправо постао сукоб дугог трајања.

Од самог почетка сукоба, могли смо да увидимо на обе стране употребу копнених, поморских и ваздушних снага, коришћење различитих ракетних система, модерних тенкова и летелица, али и употребу вештачке интелигенције која се у одређеним сегментима одразила на промену начина ратовању и тактичку припрему операција (Миљковић и Марјановић 2023). У Украјини бележимо војне продукте модерне технологије пореклом из Русије, Украјине, Кине, Сједињених Америчких Држава, Турске, Ирана и других земаља, што само потврђује да су у сукоб директно и/или индиректно умешане бројне државе, чинећи целокупну ситуацију сложенијом. Приметна је убрзана војно-технолошка револуција што нас води у неизвеснију, изазовнију, а једним делом и опаснију будућност. Имајући у виду изразит значај вештачке интелигенције у војној индустрији, циљ рада је да прикажемо трку у развоју вештачке интелигенције на примеру сукоба у Украјини.

[3] Украјина и Запад су са друге стране, овај сукоб одредили као агресију.

ВЕШТАЧКА ИНТЕЛИГЕНЦИЈА - ОД ПОЈМА ДО ПРАКСЕ

Појмовно одређење вештачке интелигенције

Индустријска револуција има своје четири етапе које посматрамо од 19. века до данас. Реч је о историјским етапама које су на својеврстан начин утицале на промене света и човечанства. Од појаве парне машине, преко технолошке и дигиталне револуције, дошли смо до примене високософистицираних технологија, вештачке интелигенције, роботизације и трансхуманизма (упор. Đorić, 2021, 157-162). Свака од наведених етапа индустријске револуције представљала је надградњу система, помоћ у производњи, превазилажење временских и просторних препрека, комуникацију и умрежавање људи из свих крајева света и слично, али је исто тако отварала све већи простор за манипулације и злоупотребу, што су показали светски ратови, трка у наоружању, сајбер тероризам, „дарк" веб, високотехнолошки криминал и томе слично. Имајући у виду оба аспекта, фокусираћемо се на вештачку интелигенцију, почевши од појмовног одређења.

Појам *вештачке интелигенције* (*Artificial Intelligence - AI*) сковао је амерички математичар и информатичар Џон Мекарти (*John McCarthy*) и увео ју је као наставну дисциплину1956. године на конференцији на Дартмаут колеџу (*Dartmouth College*) у Сједињеним Државама. Према Мекартију, ВИ је „наука и технологија прављења интелигентних машина, посебно интелигентних компјутерских програма. То је повезано са сличним задатком коришћења рачунара за разумевање људске интелигенције, али ВИ не мора да се ограничи на биолошки видљиве методе" (McCarthy 2007). Осим наведене дефиниције, постоје бројна објашњења ВИ, што говори о сложености самог појма, али и проблемима да се она јасно одреди. То нас и не чуди, будући да је ВИ „имитација или симулација нечега што сами још увек не разумемо у потпуности: људске интелигенције" (Sheikh, Prins and Schrijvers 2023, 16). Експертска група за вештачку интелигенцију при Европској комисији (*High-Level Expert Group on Artificial Intelligence* (*AI HLEG*)) дефинише вештачку интелигенцију као системе који „показују интелигентно понашање тако што анализирају своје окружење и предузимају радње – са одређеним степеном аутономије – за постизање специфичних

циљева" (High-Level Expert Group on Artificial Intelligence 2019). Дакле, АИ имају способност учења и прилагођавања (Shalev-Shwartz and Ben-David 2014). У циљу што бољег разумевања ВИ наводимо и следећу дефиницију: „Технологије вештачке интелигенције имају за циљ репродуковање или превазилажење способности које захтевају „интелигенцију" уколико би те процесе изводили људи. То укључује: учење и прилагођавање, сензорно разумевање и интеракцију; резоновање и планирање; оптимизацију процеса и параметара; аутономију; креативност; и екстраховање знања и предвиђања из велике и разноврсне [количине] дигиталних података" (McKendrick 2019). Дакле, циљ је стварање „структуре система учења која ће представљати самоучећи систем", без потребе да човек потхрањује машину низовима података (Радун 2018, 239). Треба напоменути да ВИ укључује и сензибилност, о чему се говори у „Трансхуманистичкој повељи о правима" (*Transhumanist Bill of Rights*). У наведеној повељи под појмом „сензибилних бића" обухватају: 1) људска бића, укључујући и генетски модификована људска бића; 2) киборге; 3) дигиталну интелигенцију; 4) интелектуално унапређене животиње; 5) било која врста унапређених биљака и животиња које поседују способност за интелигентно мишљење и 6) друге форме које имају осећај (Transhumanist Bill of Rights – Version 3.0 2018).

Постоји више различитих критеријума за поделу ВИ. Један од основних критеријума тиче се области у којима се ВИ употребљава, те према томе она може бити: 1) специјализована ВИ - користи се само у одређеним областима; 2) општа ВИ – као општа способност интелигенције која се може применити у различитим областима (економија, привреда, образовање, медицина, војна индустрија и слично) и 3) супер-интелигенција (Kaplan and Haenlein 2019). Сложенију типологију ВИ понудио је Алекс Бекер (*Alex Bekker*) поделивши је на: 1) интерактивну ВИ (пример: лични асистенти попут *Siri*, *Cortana* и *Alexa*); 2) функционалну ВИ (роботи); 3) аналитичку ВИ (анализа података, *machine learning*); 4) текстуалну ВИ (препознавање текста, конверзија говора у текстуалну форму); 5) визуелну ВИ (технологија проширене стварности) (Bekker 2019).

Вештачка интелигенција у војном сектору

Сведоци смо све чвршће повезаности роботике и ВИ, што доводи до стварања интелигентних робота способних за обављање

различитих послова (упор. Остојић, 2018). Стварају се паметни андроиди, хуманоидни роботи, актроиди, индустријски роботи, роботи у војсци и слично. Када је реч о употреби ВИ у војсци, она пружа вишеструке могућности, као што су анализа и обрада обавештајних података, припрема стратегије, извођење борбених дејстава и логистика. Несумњиво, потенцијал ВИ за војну индустрију и наоружање је огроман. ВИ може допринети тачности и ефикасности војних мисија, бржој обради података, прецизности и правовременом одлучивању. Дронови и друга аутономна војна возила могу да обављају мисије са минималним људским капацитетима, остварујући тактичку предност у односу на стање на терену. Оно што стручњаци бележе као предност ВИ и машинског учења у војном и одбрамбеном сектору односи се на аутономност система, предиктивну аналитику, сајбер безбедност и реалистичну симулацију борби (Cohen 2023; Ro 2023). Алгоритми машинског учења користе се за предвиђање догађаја, због чега издвајамо предиктивну аналитику (*predictive analytics*) као значајан сегмент у припреми војних операција. Дакле, све претходно наведено показује да ВИ може да обезбеди све сегменте офанзивно-дефанзивних акција, од анализе огромних скупова података, предвиђања потенцијалних претњи и ризика, реалне симулације борбе, доприноса при креирању стратегија напада и одбране до заштите сајбер простора и виталних сегмената државе.

Један од кључних аспеката ВИ у војној индустрији односи се на производњу аутономних оружаних система (даље у тексту: АОС) као што су роботи, беспилотне летелице и пловила. АОС имају способност самосталног деловања без директног људског надзора, због чега се све чешће употребљавају у сложеним операцијама. Основна подела АОС је: 1. беспилотне летелице или дронови; 2. беспилотна подводна возила; 3. беспилотна копнена возила и 4. борбени роботи. Сваки од наведених система користи се за извиђање, идентификацију и извођење дејстава у ваздуху, на копну и под водом. Они у свом раду користе алгоритме машинског учења како би навигирали своје кретање у различитим условима и препознавали циљеве свог деловања.

Дронови годинама уназад имају све значајнију улогу у војним јединицама широм света. Опремљени су камерама и сензорима како би могли да врше извиђање и надзор терена, препознавање лица и објеката и прецизне нападе. Осим тога, дронови могу да се користе у електронском ратовању и ометању непријатељских

комуникација. Са друге стране, дронови се користе и за транспорт, посебно у неприступачним пределима. Једна од добро познатих врста дронова јесу роботи-убице или „потпуно аутономна оружја" (*Lethal Autonomous Weapon Systems*) која су способна да самостално бирају мете и усмеравају своје деловање ка њима (Sparrow 2007; Schwarz 2021; Taddeo and Blanchard 2022). Дронови убице су опремљени оружјем различитог типа, попут бомби и ракета, и користе се за директно неутралисање непријатељских мета. Борбене беспилотне летелице су најчешће у употреби у војним формацијама широм света будући да су, услед технолошких открића, јефтини за масовну производњу (Dorsey and Amaral 2021).

Табела 1. Одабрани аутономни оружани системи

Type	Name	Developer	Country	Usage	Autonomy	Year
Loitering Munitions	Drone 40	DefendTex	Australia	Quadcopter + grenade	Nav + Target	2016
	Mini Harpy	Israel Aerospace Industries	Israel	Mini-UAS + munition	Nav + Target + Fire	2019
	KUB-BLA	Kalashnikov	Russia	Loitering munition	Nav + Target + Swarm	2019
	Kargu	STM	Turkey	Loitering munition	Nav + Target + Fire	2020
Unmanned Aerial Vehicle	Bayraktar TB2	Bayraktar	Turkey	Unmanned aerial combat vehicle	Nav	2014
	MQ-9 Reaper	General Atomics	U.S.	ISR	Nav + Identify	2020
	Unnamed SRR drone	Skydio	U.S.	ISR	Nav + Identify	2022
Aircraft	Ghost Bat	Boeing	Australia	Wingman UAS controlled by manned parent	Nav + Target + Fire	2020

Извор: Longpre, Storm, and Shah 2022.

У табели [1] издвојени су одређени АОС развијени у САД, Русији, Турској, Израелу и Аустралији. Наведеној групи оружаних система додали бисмо још и кинеске производе *JARI*, веома добро опремљено теренско беспилотно возило и *Blowfish,* беспилотни хеликоптер (Kayser 2021).

Сједињене Америчке Државе имају значајне пројекте када је у питању употреба ВИ у војној индустрији. Пројекти се односе на производњу и развој АОС. Америчко Министарство одбране у последњих неколико година уложило је неколико милијарди долара у развој ВИ. У 2022. години издвојено је близу 900 милиона долара за подршку око 700 пројеката развоја ВИ (Halpern 2023). У Националној стратегији одбране (*National Defense Strategy*) из 2018. године јасно се позива на развој ВИ и напомиње се да САД не могу очекивати успех у „сутрашњим сукобима јучерашњим оружјем или опремом" (National Defense Strategy 2018). Присетимо

се пројекта Мавен (*Project Maven - Military Artificial Intelligence for Unmanned Systems*) који је Пентагон покренуо 2017. године са циљем да машинско учење (*machine learning*) стави у војну употребу против милитаната Исламске државе у Сирији и Ирану (Weisgerber 2017). Реч је о ВИ Министарства одбране која је намењена да обрађује слике и видео записе са дронова и да аутоматски открива потенцијалне мете (Strout 2022). Исто тако, машинско учење може допринети и у борби против радикализације и тероризма, посебно у контексту истраживања података (Ђорић и Милошевић 2021, 208-209). Русија такође развија модерне оружане системе базиране на ВИ, што је у односу на конкурентске државе, пре свега САД и НАТО, неопходно у модерној трци у наоружању. Русија је започела Еру технополиса која представља комбинацију техничко-технолошких, научних и стручних капацитета, са циљем да развијају модерне системе у цивилном и војном сектору (Zysk 2020; Bendett, Boulègue, Connolly et al. 2021). Отуда и Национална стратегија за развој ВИ за период до 2030. године, коју је руски председник Владимир Путин прогласио указом 2019. године (Указ Президента Российской Федерации от 10.10.2019 г. № 490). Кина такође развија ВИ и од доласка Си Ђинпинга (*Xi Jinping*) на власт, претендује да постане глобални лидер у области науке и високо софистициране технологије. Кинеска влада усвојила је различите политике са циљем да земља постане глобални лидер у области вештачке интелигенције до 2030. године. Канцеларија за информисање Државног савета Народне Републике Кине објавила је 24. јула 2019. године белу књигу под називом „Кинеска национална одбрана у новој ери" (*China's National Defense in the New Era*). У наведеној књизи се, између осталог, наглашава важност коришћења вештачке интелигенције за војну модернизацију како би се испунили захтеви националне безбедности у новој ери (China's National Defense in the New Era 2019; Qiao-Francoand Bode 2023).

Као што можемо да видимо, ВИ се све више користи у војном сектору, због чега констатујемо да смо сведоци глобалне трке у развоју вештачко-интелигентних наоружања, као што је током хладног рата то била трка у конвенционалном наоружању.

УПОТРЕБА ВИ У РУСКО-УКРАЈИНСКОМ РАТУ

Од почетка руско-украјинског сукоба могли смо да приметимо различита оружја базирана на вештачкој интелигенцији. И Русија

и Украјина користе модерне типове наоружања, што је отворило питања о њиховом утицају на ескалацију кризе. Обе стране користе наоружане дронове, системе за електронско ратовање, сајбер нападе и прикупљање података. Присетимо се да је руски председник Владимир Путин рекао 2017. године да ће онај ко постане лидер у развоју вештачке интелигенције „постати владар света" (Fierro, 2022). Стога нас не чуди убрзана трка у развоју вештачке интелигенције у војном сектору.

Када је реч о дроновима, Русија поседује више дронова за различите намене. Руски дрон камиказа KUB-BLA развијен је од стране компанија Калашњиков (*Kalashnikov Group*) и Зала Аеро (*Zala Aero Group*). Кључне карактеристике наведеног дрона су: висока прецизност, једноставно руковање и тихо извођење операција. Поседује технологију визуелне идентификације ВИ за препознавање и класификацију циљева у реалном времену (Daifullah al-Garni 2022; Kayser 2021). Исте компаније произвеле су и дрон камиказу Лансет (*Lancet*), који представља „паметно вишенаменско оружје, способно да самостално пронађе и погоди мету" (Daifullah al-Garni 2022). Ово оружје може препознати тип унапред одабране мете унутар географске области, након чега изводи напад (Fierro 2022). Руска компанија *ENICS* креирала је 2013. године дрон *Eleron-3SV*, који је опремљен оптичким и електронским елементима и користи се за извиђање. Руска војска је користила овај дрон у Донбасу, Сирији, а данас га користи у сукобу са Украјином.

Руски војници користе и мале беспилотне летелице *Orlan-10*, који служе за осматрање и извођење напада. У извиђачким акцијама овај дрон се користи у групи од два или три дрона, где први има улогу извиђања, други електронског ратовања, док трећи преноси информације централи (Lowther and Siddiki 2022, 10). Русија у својим редовима има и дрон *Forpost R*, који се користи за извиђање, радарску идентификацију и напад. Дакле, реч је о извиђачкој и ударној беспилотној летелици за коју је Русија добила лиценцу од Израела, али се сада у потпуности производи од руских компонената (Рябов 2022). Русија у свом арсеналу има и борбени дрон Орион-Е (*Orion-E*), за који се сматра да је најбољи ударни дрон у Русији. Руске снаге су први пут употребиле овај дрон у Сирији против побуњеника супротстављених Асадовом режиму. Брзина овог дрона је 200 км/ч, а максимална носивост до 250 кг. Опремљен је оптичким и инфрацрвеним камерама, ласером који одређује мете и

арсеналом до четири ракете ваздух-земља или ваздух-ваздух (Lowther and Siddiki 2022, 10-11). Осим тога, користили су и комерцијалне дронове кинеске компаније *DJI*, која је убрзо након отпочињања сукоба обуставила пословање у Русији у Украјини. Русија такође има војне роботе, а најзапаженији су роботи за деминирање *Uran-6*.

Са друге стране, Украјина такође поседује значајан број дронова које користи у различитим операцијама. Украјинска војска користи беспилотну летелицу турске производње Бајрактар (*Bayraktar TB2*), која је вишенаменска. Наведени дрон може спроводити обавештајне, извиђачке и оружане мисије, а захваљујући модерним системима, Бајрактар је способан самостално да полеће и слеће. Наведени дрон може бити опремљен са четири ласерски вођене бомбе, што се показало ефикасним против тенкова и других оклопних возила на терену (Baykar 2023). Пре употребе у Украјини, Бајрактар се користио Сирији, Либији и Азербејџану. У Украјини се производи мали дрон „Панишер" (*Punisher*) који је описан као „брз, неочекиван, прецизан и смртоносан" (Crumley 2022). Карактеристике тог дрона су скромне, али је његова употреба приметна у акцијама на бојном пољу. Украјина у својим акцијама користи и обичне комерцијалне дронове које опрема молотовљевим коктелима у борби против руских снага (Kesslen 2022). Дрон пољске производње, *Warmate-1*, такође се може видети на украјинској страни. Реч је о дрону који има систем аутономног или мануелног управљања, достиже брзину до 150 км/ч и украјинске снаге га користе за извиђање и нападе на руске трупе. Не треба занемарити ни *Tupolev Tu-141 Strizh*, дрон који потиче из совјетског периода, али се користи и данас на бојном пољу. Украјина је овај тип дрона унапредила 2014. године и користи га у актуелном сукобу (Lowther and Siddiki 2022).

Осим тога, Украјина користи и ракете *Switchblade 300* и *Switchblade 600*, које имају различите аутономне могућности, попут навигирања и препознавања објеката. Реч је о комбинацији пројектила и дрона, будући да војник лансира ракету са земље која је потом способна да самостално лоцира мете, те их због тога сврставају у категорију *SUAS* летелица (*Small Unmanned Aircraft System*) (Atherton 2023). Украјина развија и беспосадна аутономна пловила која имају значајну улогу на Црном мору и чине саставни део поморских трупа. Према мишљењу појединих аутора, Украјина је отворила нову еру поморског ратовања употребом поморских беспосадних дронова камиказа наоружаних експлозивом, дизајнираним да се залете у

мете и детонирају (Zafra and McClure 2023). Украјина је у мају 2023. године представила беспосадна подводна пловила *Toloka TLK-150*, али је најавила и производњу већих верзија ознака *TLK-400* и *TLK-1000*. Реч је о пловилима која ће моћи да изводе борбене операције, али и да извиђају терен и прикупљају обавештајне податке. Најмања верзија може да носи бојеву главу тежине од 20 до 50 кг, док ће највећа верзија имати капацитет бојеве главе до 5.000 кг (Noreika 2023). Украјинске снаге користе и роботе на бојном пољу, посебно верзију *GNOM*, који се користи за извиђање, али и ватрену подршку митраљезом 7,62 мм (Muzzeddu 2022).

Обе стране, осим дронова, поседују системе за електронско, информационо и сајбер ратовање. Реч је о системима који служе за ометање или прекид функционисања мрежа противничке стране, затим за прикупљање обавештајних података или пак ширење лажних информација. Вештачка интелигенција се може користити за креирање и дистрибуирање лажних информација и у миру, и у рату, укључујући манипулације сликама и видео записима (Favaro and Williams 2023). Осим тога, обе стране користе ВИ како би прикупљале и обрађивале податке са дронова. Такође, користе и технологију препознавања лица, транскрипцију, превођење и прислушкивање (Favaro and Williams 2023). Према појединим ауторима, кључна улога вештачке интелигенције у украјинској служби је интеграција препознавања циљева и објеката, као и за геолоцирање и анализу података отвореног кода као што је садржај друштвених мрежа да би се идентификовали руски војници, оружје, системи, јединице или њихова кретања. Дакле, неуронске мреже се користе за комбиновање фотографија, видео снимака са беспилотних летелица и сателитских снимака како би се обезбедила бржа анализа и процена обавештајних података, да би се на основу тога остварили одређене стратешке и тактичке обавештајне предности (Bendett 2023). Украјина значајну подршку добија од Сједињених Америчких Држава и америчких сајбер тимова који су распоређени у Европи. О тој помоћи сведочи и изјава високе званичнице Пентагона Лауре Купер (*Laura Cooper*), која је рекла: „Сви смо били изузетно импресионирани колико ефикасно украјинске оружане снаге користе опрему коју смо им обезбедили" (Sanger et al. 2022). Са тим у вези треба навести да је украјинска војска користила *Clearview AI* са седиштем у САД за идентификацију мртвих руских војника и за откривање руских нападача, као и за борбу против дезинформација. Такође, америчка

компанија *Primer* је применила своју вештачку интелигенцију за анализу нешифрованих руских радио комуникација, користећи обраду језика да би разумела специфичне начине које руски војници користе за комуникацију (Bendett 2023).

Уз све наведено, треба имати у виду да је и технологија базирана на ВИ од почетка сукоба до данас знатно напредовала, што показује да за кратко време нове технологије могу постати још иновативније и сложеније. Један од примера је развој дронова са ВИ који су од почетка сукоба прошли бројне фазе унапређивања, те се сада на бојном пољу могу видети нове верзије дронова које извршавају своје задатке упркос електронским ометањима и губитку сигнала са базом. Дакле, ВИ помаже дрону да заврши своју мисију чак и ако се његова мета помери, што представља значајну надоградњу постојећих дронова који прате одређене задате координате. Са тим у вези, заменик украјинског премијера Михаил Федоров (*Mykhailo Fedorov*) је рекао да је „ово технолошка трка 24/7" и томе додао да је „изазов у томе што сваки производ у свакој категорији мора да се мења свакодневно да би се остварила предност" (Hudson and Khudov 2023).

ЗАКЉУЧАК

Развој ВИ у војном сектору све је присутнији, што нам показује једну значајну промену која се у контексту руско-украјинског рата одражава на динамику ратовања на терену. Сведоци смо нове трке у развоју вештачко-интелигентних наоружања, што може довести до „будућности без људи" или пак дехуманизације у војном сектору. Самим тим, примена нове технологије базиране на ВИ у одређеној мери неутралише асиметричне предности у ратовању између статистички, технолошки и тактички моћније војске и оне која је скромнијих капацитета. То значи да нове технологије, посебно дронови и њихова широка употреба, могу помоћи војсци слабијих капацитета да пружи отпор и пролонгира сукоб који би требало, наизглед, да буде кратког трајања. Ни у ком случају не занемарујемо улогу конвенционалног наоружања, већ само указујемо на значајне промене које је руско-украјински сукоб показао, а тичу се употребе иновативних технологија. Један од примера који смо навели односи се на употребу комерцијалних дронова који су јефтини, али су се показали као значајни у нападачким, извиђачким и другим акцијама.

Осим што је њихова производња и употреба јефтинија у односу на класичне летелице попут авиона и хеликоптера, предност је и у томе што штеде људске ресурсе и умањују жртве.

Такође, гомилање беспилотних и беспосадних дронова и њихова широка употреба у офанзивно-дефанзивним акцијама изазивају страх од непознатог и исцрпљују противничку страну, посебно у случају када ти дронови наставе своју акцију упркос електронским ометањима. Због тога је неопходно свакодневно иновирање технолошки система, јер уколико само једна страна унапређује своја оружја базирана на ВИ, противничка страна неће моћи адекватно да одговори, односно, постоји могућност да многа од тих вештачко-интелигентних дронова и других система прођу неопажено противничку одбрану. Према томе, ово је права технолошка трка која се води 24/7 и која мења динамику актуелног сукоба.

Имајући све наведено у виду, можемо закључити да је руско-украјински сукоб интензивирао трку у развоју вештачке интелигенције и производњи интелигентних наоружања, која се обилато користе у актуелном рату. Сведоци смо стратегије исцрпљивања која се на примеру овог рата огледа у симбиози високо-софистициране технологије и традиционалног ратовања, што ће обележити и ратове у будућности.

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THE USE OF ARTIFICIAL INTELLIGENCE IN THE RUSSO-UKRAINIAN WAR

Resume

The Russo-Ukrainian conflict, with its geopolitical importance, goes beyond regional borders, which is why it is inevitable that we talk about it as a conflict of global proportions. The direct and/or indirect involvement of numerous countries of the world in this conflict, especially in the form of military-technical, technological, economic and economic involvement, confirms the above. The focus of our work is the military-technical aspect, i.e., the use of artificial intelligence and its importance for the present and future of warfare. In the first part of the work, artificial intelligence is conceptually defined, and then the use of artificial intelligence in the military industry is elaborated, as well as its importance in changing the conventional way of warfare. Finally, the authors deal with the use of artificial intelligence in the Ukrainian war, in order to point to a new form of arms race.

Key words: artificial intelligence, drones, robots, Russia, Ukraine, Russo-Ukrainian conflict, geopolitics, security.

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ПРИМЕНА ВЕШТАЧКЕ ИНТЕЛИГЕНЦИЈЕ У САВРЕМЕНОМ РАТОВАЊУ**

Сажетак

Вештачка интелигенција (ВИ) има потенцијал да утиче на све врсте и нивое извођења војних активности, на стратегијском, оперативном и тактичком нивоу. С тим у вези, предмет рада је разматрање како системи ВИ, и у ком обиму, могу утицати на припрему и извођење различитих нивоа војних операција. Рад разматра импликације ВИ у контексту стратегије, доктрине, војних планова, правила ангажовања и наређења за извођење операција. Наведено истраживачко питање захтева широк угао анализе примене нових технологија у војној делатности, технолошком развоју савремених армија, као и разматрање политичких, војних, правних и етичких перспектива премене ВИ у оружаним снагама. Сходно томе, рад идентификује могућности, изазове и отворена питања у вези наведене теме, али и даје свеобухватна запажања.

Рад се завршава оценом да основа одговора истраживачког питања лежи у интеракцији људског фактора и ВИ. Рад пружа и смернице за унапређење даљег истраживања и креирања политике

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** Рад је резултат истраживања у научноистраживачком пројекту који је финансирало Министарство одбране Републике Србије, под бројем: ВА-ДХ/1/22-24 „Модел управљања развојем способности система одбране".

о одговарајућој интеграцији, управљању и употреби ВИ у војним операцијама.

Кључне речи: вештачка интелигенција, стратегија, доктрина, војне операције, командовање.

УВОД

Вештачка интелигенција (*AI – Artificial Intelligence*) у војним активностима односи се на системе који показују разумно и интелигентно понашање на основу анализе окружења, доносе одлуке и изводе борбене радње са одређеним степеном аутономије (Миљковић 2023, 271-275). Иако вештачка интелигенција (ВИ) има потенцијал да пружи бројне предности у војној примени, она са собом носи и специфичне изазове. Примена ВИ на конвенционалне војне способности има потенцијал да убрза доношење одлука и потисне сукоб изван људских когнитивних способности, да утиче на све нивое извођења војних операција, на стратегијском, оперативном и тактичком нивоу. С тим у вези, предмет овог рада је разматрање како системи ВИ, и у ком обиму, могу утицати и на припрему и извођење различитих нивоа војних операција. Рад није ограничен само на војних аспекте, већ разматра и политичке, технолошке, правне и етичке перспектива овог питања.

ШТА ЈЕ ВЕШТАЧКА ИНТЕЛИГЕНЦИЈА

Иако вештачка интелигенција није нов појам, са убрзањем њеног развоја у XXI веку, научници континуирано врше ревидирање њене дефиниције. За оквире овог рада, може се користити широко прихваћена дефиниција у стручним телима Европске уније којом се наводи да се „вештачка интелигенција односи се на системе који показују разумно, интелигентно, понашање на основу анализе окружења и доносе одлуке, са одређеним степеном аутономије, да остваре конкретне циљеве (Стратегија развоја вештачке интелигенције у Републици Србији 2020). Вештачка интелигенција тренутно превазилази људску интелигенцију у обављању уског скупа специфичних задатака. Међутим, потребна су даља истраживања да би се постигла вештачка суперинтелигенција, где способност

машина превазилази људску когнитивну способност у било ком задатку (Sweijs, 2018). Оно што ВИ не може још да постигне је самосвест – постојање свести о властитом идентитету и ономе што једну особу разликује од других.

Глобално признање ВИ као стратешке технологије и средства за вршење моћи и утицаја на међународном нивоу покренуло је глобалну трку за превласт у употреби ВИ у војним пословима. Светске велесиле су већ објавиле своје програме њеног развоја. Америчка национална одбрамбена стратегија из 2018. године идентификовала је ВИ као једну од кључних технологија која ће „осигурати да се САД могу борити и победити у ратовима будућности“ (National Defense Strategy 2018, 3).

СТРАТЕГИЈСКО ОДЛУЧИВАЊЕ И ВЕШТАЧКА ИНТЕЛИГЕНЦИЈА

У односу на три нивоа ратовања (стратешки, оперативни и тактички), војна стратегија је највиши ниво. Војна стратегија се „бави припремањем и вођењем рата у целини, појединих његових етапа и усклађивањем стратешких дејстава (Политичка енциклопедија, 1975, 1033). Војна стратегија (као елеменат стратегије државе) дефинише се као вештина и наука припреме и употребе оружаних снага нације да би се постигли циљеви националне политике, тј. има улогу да војним методама (силом) и средствима оствари циљеве које постави политика, тј. стратегија државе (Нишић 2011, 113). Она се може описати као „оркестрација рата“ или давање „правца рату”. (Strachan 2005, 33-54) У суштини, војна стратегија је замисао који повезује крајњи војни циљ са расположивим снагама и средствима за постизање циља. Стратегије националне безбедности и одбране дају свеобухватне оквире и усмерења за конципирање војне стратегије, и наведени ставови се често презентују у „белим књигама одбране” (Крга 2016, 53-56).

Војске развијених и већих земаља чланица НАТО су недавно усвојиле националне стратегије или сличне документе у вези са војном ВИ, што указује да су државе схватиле њен стратешки значај и усмеравају значајан напор за развој, набавку и интеграцију система ВИ у оружане снаге (Gray and Ertan 2021).

Комисија за националну безбедност САД је 2021. године представила националну стратегију одбране у вези са вештачком

интелигенцијом. Циљ је да се до 2025. године, спроведу одговарајуће „организацијске реформе у МО САД, успоставе иновативне концепте борбе америчке војске и успоставе перформансе ВИ тако да се створи заједничка архитектура ВИ која ће допринети победи у борбеним операцијама. као и победу у технолошком такмичењу" (US National Security Commission on Artificial Intelligence 2021, 8-11).

Бела књига о одбрани НР Кине из 2019. говори о „информатизацији ратовања" и поставља циљеве за модернизацију и „информатизацију" њених оружаних снага. Ова модернизација укључује и развој способности примене ВИ (National Defense in the New Era' 2019) . Свеобухватна кинеска стратегија за развој ВИ из 2017 године укратко помиње војни примене, углавном се фокусирајући на неопходност цивилно-војне интеграције за истраживање и развој (New Generation Artificial Intelligence Development Plan' 2017).

Европске државе се налазе у сличним фазама у погледу стратегија развоја ВИ. Министарство одбране Уједињеног Краљевства усвојило је 2022. године Стратегију развоја и примене ВИ у области одбране, у којој прецизира начела за ефикасну примену ВИ у одбрани, даје смернице за партнерство са индустријом и јачање међународне сарадње ради глобалног развоја ВИ (UK Ministry of Defence 2022, 1). Француска није усвојила такву стратегију, али њени извештаји истичу стратешке предности интеграције ВИ у њене оружане снаге, као што су брзина у анализи и доношењу одлука, оптимизација оперативних процеса и логистике, повећана заштита војника (France Ministère des Armées 2019, 5-7).

Наведене државне стратегије не нуде увид како ће ВИ утицати на будућу војну стратегију. Са друге стране НАТО је усвојио своју стратегију у вези ВИ 2021. године, која је основа за примену ВИ у оружаним снагама чланица Савеза (NATO Artificial Intelligence Strategy 2021).

Пошто стратегије одбрана развијених држава у вези са ВИ не дају јасну слику о томе како ће ВИ утицати на војну стратегију, одговарајућа очекивања могу бити заснована на индикацијама потенцијалне будуће употребе ВИ за стратешко доношење одлука. (Johnson, 2019). Оно што је најважније за војну стратегију је то да ВИ може да предвиди понашање и реакције других држава или да генерише симулације могућих даљих токова актуелних сукоба, укључујући моделе ратних игара (Goldfarb and Lindsay, 2022). Она може бити корисна за процену претњи, пружање анализа ризика

и предлагања правца ангажовања, што коначно даје усмерења доносиоцима одлука ка најбољем одговору који треба предузети (Deeks, Lubell and Daragh 2018). Поред тога, ВИ може да подржи усклађивање начина примене и средстава оружаних снага са политичким и стратешким циљевима, што је главна функција војске стратегија. Последица оваквог доприноса било би повећање брзине и квалитета војних операција. Овакав допринос може да извршити притисак на оружане снаге да све више делегирају „оркестрацију" војних операција на системе са ВИ (Horowitz and Scharre 2021).

Вештачка интелигенција на стратешком нивоу моћи ће да се тестира, одбацујући лажне асоцијације о противнику и идентификовање кључних рањивости непријатеља. Стратешка ВИ неће бити подложна појединачним и колективним психолошким процесима од утицаја на људско одлучивање, укључујући групно размишљање, пристрасност, бирократску политику, претерани оптимизам и лошу процену ризика. Тачно доношење одлука и предвиђање сценарија сукоба могу се додатно потврдити кроз ратне игре које користе вештачку интелигенцију и напредну симулацију. Све ове мере би теоретски подупрле стратешку стабилност.

Међутим, најтежи проблеми у вези са ратовањем су уствари и највећи проблеми стратегије, а то је неизвесност или оно што је добро познато још од Клаузевица као „магла рата". У таквој нејасној стратегијској ситуацији, „потребан је људски смисао и да доносите моралне, етичке и интелектуалне одлуке у невероватно збуњујућој, напетој, застрашујућој ситуацији", како наводе Линдсеј и Голдфарб у чланку „Предвиђање и суд: зашто вештачка интелигенција повећава важност људи у рату". Наводе да се доношење одлука помоћу ВИ заснива се на четири кључне компоненте: подацима о ситуацији, тумачењу тих података (или предвиђању), одређивању најбољег начина да се поступи у складу са циљевима и вредностима (или расуђивању) и акцији. Напредак машинског учења је учинио предвиђања лакшим, што податке и просуђивање чини још вреднијим. Наводе да иако ВИ може да аутоматизује све, од трговине до транзита, људи морају да интервенишу у расуђивању. Линдсеј и Голдфарб наводе да ВИ не треба посматрати као замену, већ као допуну постојећој људској стратегији. Машине су добре у предвиђању, али зависе од података и просуђивања, а најтежи проблеми у рату су информације и стратегија. „Услови због којих ВИ функционише у трговини су услови које је најтеже испунити у војном окружењу

због његове непредвидљивости. У рату, међутим, обично недостаје обиље непристрасних података, а судови о циљевима и вредностима су инхерентно контроверзни" (Goldfarb and Lindsay 2022, 7-50).

Ако се људи као централни елемент за одлучивање замене са ВИ у рату, онда би структура и хијерархија војног руководства могла да се промени и да се сведе на особе задужене за дизајнирање и чишћење система података и доношење политичких одлука. То такође значи да ће противници имати за циљ да угрозе и податке и расуђивање јер би они у великој мери утицали на путању рата. Надметање против вештачке интелигенције може натерати противнике да манипулишу или поремете податке како би здраво расуђивање било још теже.

Са друге стране остаје чињеница да доношење брзих и исправних одлука постаје изазов за данашње стратешке војне руководиоце. Метода брзе анализе одлучивања полази од читавог проблема доношења одлука, у потпуности користи когнитивне способности и емпиријску интуицију доносилаца одлука и користи методу логичког закључивања за вођење процеса доношења одлука. У традиционалном брзом доношењу одлука, први корак је да се очисти основна структура проблема доношења одлука, да се схвате кључни елементи и да се проблеми поједноставе. Затим се формира стабло одлучивања, уводе функције корисности, прорачуни вероватноће и друге методе које се користе за доношење судова и расуђивања, тако да анализа одлука може бити брза и ефикасна. Пракса је доказала да данас, у недостатку војног искуства из борбених операција, заједничко доношење одлука постаје главни начин војних операција. Са развојем науке и технологије, научност рата постепено је заменила своју уметност, ослањање на тимско научно одлучивање, групно одлучивање да постане мејнстрим, што је доказала и ратна пракса у Заливском рату, Ираку, Либији и Сирији, итд. Традиционално одлучивање на основу личног искуства није више доступно војним командантима као некада. Уместо тога, групно доношење одлука истиче предност колективне мудрости, као и научног одлучивања, које се ослања на савремене моделе одлучивања и операционог истраживања (Xianjin Bu and Qiwang Huang 2019).

Због тога се цени да прецизно доношење одлука ипак постаје могуће. У традиционалном војном одлучивању команданти су навикли да доносе одлуке на основу сопственог искуства, интуиције и памети. Појава технологије и алата великих података омогућила

је људима да пронађе нови начин анализе одлука. Велики подаци напуштају традиционално искуство и интуицију, наглашавају зависност од података и анализа, што не само да више чини резултате доношења одлука научним, већ и ублажава огроман ментални стрес којима су доносиоци одлука изложени. Интелигентно доношење одлука ће се у потпуности опростити од људског искуства и интуиције, заобилазећи грешке које људско доношење одлука може донети, а постизање тачних и брзо донетих одлука је могуће.

У коначном, ВИ може значајно допринети избору и примени војне стратегије на различите начине:

– *анализом података и информација*, јер ВИ може брзо и ефикасно обрадити информације о претходним војним стратегијама и операцијама противника, што може омогућити боље разумевање ситуације на терену;

– *прогнозом и анализом сценарија,* јер ВИ може израдити различите сценарије на основу доступних података и предвидети могуће исходе војних акција. Ово омогућава командним структурама да примене стратегије које најбоље одговарају ситуацији;

– *оптимизацијом ресурса*, јер ВИ може помоћи у оптимизацији употребе војних ресурса, као што су трошкови, логистика и локације. Ова оптимизација доприноси ефикасној и рационалној употреби ресурса у складу са изабраном стратегијом; и

– *правовременом праћењем догађаја и одлучивањем*, јер ВИ може пратити актуелне податке са бојишта и представити их у реалном времену командантима. Ово им омогућава да брзо реагују на промене на терену и адаптирају стратегије у складу са новим информацијама.

Међутим, важно је напоменути да се употреба ВИ у војним активностима сусреће са етичким и безбедносним изазовима. Употреба ВИ на нивоу војне стратегије такође може да носи многе изазове, укључујући чињеницу да предиктивна ВИ захтева непристрасне и велике количине података, а поуздани системи би морали да буду обучени за обраду огромних скупова података. Штавише, стручњаци су упозорили да ВИ може да доведе до нових безбедносних претњи (Johnson 2019). Штабна вежба о интеграцији ВИ у системе за командовање нуклеарним оружјем показала је да су такви системи „рањиви на злонамерну манипулацију која може озбиљно да деградира стратешку стабилност" (Fitzpatrick 2019).

Такве рањивости указују на важност безбедности система са ВИ који се кор исте за војну стратегију.

Још један значајан изазов је да ВИ може убрзати брзину ратовања до те мере да људи више неће моћи да прате развој сукоба наведеном брзином, што на крају доводи до тога да „људи губе контролу над ратом". Овај феномен је назван „сингуларност бојног поља" или „хиперрат" и може довести до стратешких грешака и несрећа, укључујући нехотичну ескалацију сукоба (U.S. Naval Institute 2017). Чак и ако се такви ризици могу ублажити, повећано ослањање на ВИ смањило би учешће људског фактора у војној стратегији, посебно људске психологије и људског расуђивања. Наведено би могло довести до јаза између начина на који ВИ решава проблем који су уоквирили људи и како би га ти људи решили да поседују брзину, прецизност и моћ мозга ВИ.

Када су у питању војне операције, постоје додатни проблеми као што је: ризик ланца снабдевања изазван недостатком залиха, неизвесност да ли се аутоматизована возила могу користити у компликованим ситуацијама, и висока цена имплементације вештачке интелигенције. Висока цена имплементације ВИ представља значајну препреку с обзиром на сложеност инжењеринга укљученог у стварање једног сложеној оружаног система опремљеног са вештачком интелигенцијом. Поред тога, трошкови се ту не завршавају јер поправке и одржавање таквог сложеног система могу бити изузетно високи и сложени у ратним условима.

Све ове негативне стране показују да треба пажљиво балансирати користи и ризике примене ВИ у војним стратегијама и узети у обзир етичке, социјалне и безбедносне аспекте. Стручњаци због тога сугеришу да би развој стратегије захтевао разумевање сложеног друштвеног система у којем се рат дешава, чиме би се значајно ограничила употреба вештачке интелигенције за војну стратегију. Такође, сматра се да и у условима ратовања у којима непријатељи поседују висок ниво рационалне моћи предвиђања коју обезбеђују системи ВИ, одлучујући фактор ипак неће бити способности система ВИ, већ људска процена, посебно у вези са критичним и тешким одлукама, што претпоставља одређени ниво смисленог људског учешћа (Goldfarb and Lindsay 2020).

Укратко, велике војне силе значајно улажу у развој, набавку и операционализацију примене ВИ, због предвиђених стратешких предности које она доноси. На основу тренутног технолошког развоја,

може се очекивати да ће ВИ побољшати развој војне стратегије и доношење стратешких одлука, посебно тамо где је ВИ у стању да обради више података, са већом прецизношћу и већом брзином од људи или класичне рачунарске обраде података (Vestner 2023, 5-9). Као последица, вероватан резултат је убрзање војних операција које могу повећати притисак на оружане снаге да интегришу ВИ и маргинализују људско расуђивање на стратешком нивоу. Као такво, поседовање и коришћење ВИ постаје стратешко средство и циљ. Истовремено, улагање држава у војну ВИ може повећати ризик од дестабилизације трке у наоружању, погрешне перцепције и погрешних прорачуна. У сваком случају, будуће војне стратегије треба да узму у обзир наведене ризике.

Сходно наведеном, примена ВИ у избору и примени војне стратегије доноси са негативне стране које треба разматрати, као што су:

– *грешке и несигурност при анализи,* јер се системи ВИ се заснивају на алгоритмима и подацима који су на располагању. Ако они нису потпуно тачни или ако долази до прекида у комуникацији, системи ВИ могу донети погрешне одлуке или извести закључке који нису у складу са реалношћу;

– *етичка питања*, јер коришћење аутономних оружја иде против етичких принципа људског контроле и одговорности за војне акције;

– *зависност од технологије*, имајући у виду да претерана зависност од система са ВИ може довести до губитка личног искуства и интуиције код војних стратега;

– *предвидивости*, због тога што примена ВИ може довести до патернизације и предвидивости у војним акцијама, што може довести до развоја стратегија које су унапред познате противнику; и

– *социјални и политички аспекти*, јер примена ВИ у војним стратегијама може довести до социјалних и политичких спорова, како унутар земље, тако и у међународној заједници.

Наведена истраживања откривају да док многе војне активности имају процесне и механичке димензије, конкурентска војна стратегија захтева новину, креативност и иновативност. Вештачкој интелигенцији тренутно недостаје елемент креативности и интуиција која је неопходна у стратегији. У комбинацији са људским способностима, ВИ се може користити за тестирање и исхода модела стратегије, ратних игара, и елиминисање групног мишљења и других

предрасуда у стратешком одлучивању (Zaidi 2023, 61). Међутим, противничка конкуренција ће натерати нације и војску да користе ВИ упркос изазовима који могу бити нездрави за организацију као што је војска због опасности од прекомерне технолошке зависности и ерозије слободе и креативног духа појединца при сратешком одлучивању.

КОНЦИПИРАЊЕ ДОКТРИНЕ И ВЕШТАЧКА ИНТЕЛИГЕНЦИЈА

Војна доктрина претежно се дефинише као „систем усвојених ставова и погледа о организацији, припремама и употреби оружаних снага, и вођењу оружане борбе на стратегијском, оперативном и тактичком нивоу (Војни лексикон 1981, 686). Као таква, она представља институционализоване ставове како војска треба да функционише у рату и изводи војне операције.

С обзиром на сврху и функцију доктрине, ВИ ће вероватно имати ограничену улогу у њеном развоју и цени се да ће људски фактор остати доминантан у њеном концептуалном стварању. Специфичне улоге ВИ могу бити ограничене на функцију надгледања у вези са процесима усклађивања структуре и организације оружаних снага са новом доктрином и за подршку проценама квалитета доктрине (Vestner 2023, 9-13).

Доктрина, са друге стране, може да има важну улогу у постављању основних принципа за употребу и интеракцију људи са ВИ. Она је одговарајуће средство да се дефинише како оружане снаге перципирају, разумеју и вреднују ВИ. Због високог нивоа аутономије ВИ, оружане снаге ће можда морати да прецизирају да ли се ВИ сматра само техничким алатом или извршиоцем. У том смислу, доктрина може да дефинише да ли оружане снаге перципирају ВИ као обичан математички, технички систем или средство са когнитивним способностима које може деловати као аутономни утицај (Drohan 2020). Пошто војне операције чине напори у циљу испуњивања људских сврха у људском свету, доктрине могу да дефинишу вредности и принципе о људској интеракцији са системима ВИ, укључујући да ВИ треба да служи људима, а не супротно.

Слично томе, доктрина је одговарајући алат за дефинисање етичких стандарда за развој, набавку и употребу система ВИ за војне

потребе. Тачније, доктрина може да постави принципе за интеграцију ВИ у војне организационе процесе. На пример, системи ВИ чији су задаци ограничени на извиђање и надзор противника захтевали би већу слободу у односу на ограничена дефинисана у општој доктрини, што ће вероватно захтевати конкретније смернице о елементима као што су заштитне мере, степен аутономије и комуникација са оператером, као и о њиховој интеракцији са људским снагама (White 2017, 78).

До данас, развијене државе нису објавиле војне доктрине посебно посвећене системима ВИ. Здружена доктрина Министарства одбране Уједињеног Краљевства о системима беспилотних летелица је тренутно једина јавно доступна војна доктрина која се бави аутономијом у војним системима (UK Ministry of Defense 2017). Иако се углавном бави беспилотним системима без вештачке интелигенције, она утврђује да људска контрола мора бити задржана над аутономним оружјем како би се гарантовао надзор, смањење ризика и одговорност. Сматра се да ће будуће војне доктрине у вези са ВИ вероватно бити развијене на основу политика о етичкој употреби ВИ. Неколико држава и организација недавно је усвојило такве политике о етичкој употреби војне вештачке интелигенције, укључујући НАТО (NATO Artificial Intelligence Strategy, 2021). Министарство одбране САД усвојило је пет етичких принципа за развој и употребу ВИ. Наводи се да системи морају бити одговорни, правични, поуздани и такви да се њима може управљати. Ови принципи утврђују да је војно особље одговорно за „развој, примену и употребу" система ВИ и стога мора показати солидан ниво људског расуђивања. Поред тога, наводи се да се мора уложити напори да се минимизира пристрасност у подацима на којима ради ВИ (US Department of Defense 2020). Одређене директиве Министарства одбране САД утврђује позицију САД о смртоносним аутономним оружаним системима (LAWS – lethal autonomous weapon systems) и идентификује три њихове категорије (аутономни, полуаутономни и аутономни системи под људским надзором), поставља границе за њихово деловање, стандарде у вези са улогом људских особља, као и правним аспектима употребе. Доктрина наводи да оваква оружја (LAWS) морају бити осмишљена тако да „омогуће командантима и послужиоцима „одговарајући ниво људског просуђивања о употреби силе." Концепт одговарајућег људског расуђивања је флексибилан како би се омогућило прилагођавање нивоа људске контроле на система. У

најмању руку, LAWS се морају користити „са одговарајућом пажњом и у складу са ратним правом, важећим уговорима, правилима о безбедности система оружја и важећим правилима ангажовања (US Department of Defense Directive 2012).

Сходно наведеном, страни експерти цене да је мало вероватно да ће ВИ имати значајну функцију за креирање војне доктрине, јер доктрина служи за регулисање војних организационих питања, као и припреме, извођења и обезбеђења војних операција, тј. дефинише опредељења која су снажно повезана са војним искуством, ратном националном праксом, историјским и актуелним вредностима и идентитетом (Vestner 2023, 9-13). Ипак, управо због ове функције, доктрина има важну улогу у дефинисању фундаменталног односа оружаних снага према ВИ. Конкретно, доктрина је прикладна за успостављање општих опредељења за које задатке ће ВИ бити коришћена, за које неће, како ће бити коришћена, како не сме бити коришћена, као и како војна организација и њени припадници треба да перципирају и вреднују ВИ. Етичке смернице држава могу да буду уграђене у целине војне доктрине које разматрају употребу ВИ.

ВОЈНИ ПЛАНОВИ И ВЕШТАЧКА ИНТЕЛИГЕНЦИЈА

Планови војних операција, који су израђени у складу са одговарајућом доктрином, су упутства за постизање војних циљева у складу са расположивим војним средствима. Планови одражавају намеру команданта и често укључују различите опције извођења операција. Уопштено говорећи, планирање се састоји од дефинисања детаљних задатака потребних за реализацију различитих опција извођења операција, додељивање задатака различитим снагама, дефинисање одговарајућих локација и рута војних активности и предвиђање непријатељских акција или одговора (Rasch and Kott, 2003).

Војска САД је развила програм за свој процес доношења одлука (Military Decision Making Process – MDMP) који планира операције на највишем стратегијском нивоу и обухвата скицу најширих циљева и редослед најширих војних јединица и операција, конструише детаљне варијанте операција засноване на општој скици, да би потом тестирали његову изводљивост (Rasch and Kott, 2003). Наведено указује да ВИ могу служити различитим функцијама планирања, од сугерисања курсева операција, до њихове деконструкције и тестирања.

Такве апликације ВИ ће вероватно имати значајне последице на планирање, јер је планирање војних операција спор и оптерећујући процес, који се ослања на процене „исхода, исцрпљености противника, потрошње залиха и непријатељске реакције" (Rasch and Kott, 2003). Укључује разумевање борбене ситуације, временско-просторну анализу и логистичке проблеме. Временска и ситуациона ограничења ограничавају колико опција се може истражити. Штавише, предвиђање је несумњиво један од најзахтевнијих задатака команданта. Под условом да се довољан квантитет и квалитет података може ставити на располагање команданту, ВИ може да значајно унапреди предвиђање и по квалитету и по брзини. Аналитика података даље омогућава обраду много више информација од људског ума, што би на крају евентуално могло да умањи „маглу рата". Како програми ВИ могу да деконструишу операције у специфичне задатке, да би потом определили ресурсе у складу са тим, предвидели непријатељске акције и проценили ризике, употреба ВИ би побољшала општу брзину и тачност доношења одлука. Повећање у броју варијанти операција који се могу узети у обзир, омогућило би квалитативно побољшање процеса планирања (Vestner 2023, 13-15).

Ипак, постоје и потенцијални недостаци коришћења ВИ за планирање. Тамо где се моћни системи ВИ користе за војно планирање, разлика између планирања и доношења одлука може постати замагљена. Такође, поставља се питање да ли би планирање засновано на ВИ подстицало претерану фиксацију на аналитички аспект командовања, сагледавајући само податке и бројеве, умањујући интуитивне, прилагодљиве, уметничке аспекте доношења одлука војних команданата. Поред наведеног, команданти и друго војно особље могу постати зависни од технологије, што их потенцијално чини рањивим. Остаје и изазов који је раније наведен, а то је генерисање довољних и релевантних података, како би системи планирања са ВИ правилно функционисали.

Укратко, у поређењу са другим применама војне примене вештачке интелигенције, вероватно је да ће ВИ имати најзначајнији утицај на планирање (Vestner 2023, 13-15). Пошто планирање захтева значајно време и ресурсе, системи ВИ могу довести до повећање брзине, прецизности и квалитета. Ово може имати значајне ефекте на војне операције и ратовање, јер се тврдило да је победник војних сукоба онај који најбрже ради кроз ООДА петљу (*OODA – Observe, Orient, Decide, Act* – посматрај, оријентиши се, одлучи и поступај).

Даља последица може бити да аутоматизација планирања доводи до веће рационализације војног доношења одлука, укључујући и рационализацију људских жртава. Друга последица је потреба за смањење ангажованог људства. Потреба за мањим бројем људи за планирање, међутим, не сме нужно значити смањену потребу за људским расуђивањем за доношење одлука у вези са војним плановима, посебно тамо где вредности и интуиција остају кључни аспекти. планирања.

ПРАВИЛА АНГАЖОВАЊА И ВЕШТАЧКА ИНТЕЛИГЕНЦИЈА

Правила ангажовања служе да разграниче околности и ограничења за распоређивање и употребу војних снага у конкретној операцији (Службени гласник РС 2018). Правила ангажовања су генерално „мешавина војних и политичких захтева, који су ограничени међународним и домаћим правним нормама. Стога, правила ангажовања садрже војно оперативне, правне и политичке елементе (Boddens Hosang 2020).

Правила ангажовања могу бити искоришћена да дају конкретна упутства како користити и под којим условима се може применити ВИ у одређеном војном контексту. На пример, правило ангажовања би могло да одреди географску зону или одређену листу потенцијалних задатака за које су системи ВИ овлашћени да предузму акцију. Изван тих граница они не би деловали.

Правило ангажовања је посебно релевантно када се ВИ користи за наношење губитака противнику, као што је случај у контексту одређивања циљева гађања, посебно када се има у виду да ВИ не може да инкорпорира етичке или контекстуалне процене у свој процес одлучивања (Weinbaum, 2019). Иако до данас не постоји аутономно оружје које би могло да нападне људске мете без претходне људске дозволе, постоји свеукупно склоност ка аутономнијим системима у контексту одређивање циљева гађања. За америчку противбродску ракету дугог домета (LRASM – Long Range Anti-Ship Missile), која је вођена ВИ, наводи се да је способна да аутономно бира и погађа мете, чак и у окружењима у којима је ГПС и комуникација не функционише, као што су дубоке воде и свемир. Још један сличан пример је турски дрон Каргу-2 који је коришћен у Либији у марту 2020. године и који је наводно пратио и гађао људске мете без

одобрења људског оператера (United Nations Security Council 2021). Његова употреба представља значајан преседан у погледу употребе система ВИ за циљање са веома ограниченом људском контролом.

Укратко, правила ангажовања могу бити одговарајући војни документи за усмеравање употребе ВИ на конкретан начин. Као такви, омогућавају примену и конкретизацију војних, политичких, правних и етичких циљева и принципа примене ВИ у конкретној војној операцији. Смернице правила ангажовања су посебно релевантне за тимове људи и машина, као и за дефинисање и конкретизацију смислене људске контроле и просуђивања у вези са системима ВИ у контексту избора циљева за гађање.

КОМАНДОВАЊЕ (НАРЕЂИВАЊЕ) У РАТУ И ВЕШТАЧКА ИНТЕЛИГЕНЦИЈА

Најконкретнији инструмент за планирање и извођење војних операција су команде – наређења, која се у војскама дефинишу као „комуникација писана, усмена или сигнализирана, којом се преносе упутства од надређеног према подређеном у ланцу командовања" (Домазетовић, 1992).

Иако системима ВИ вероватно неће бити поверено да сами формално издају команде и наређења, ипак се може појавити њена слична употреба. Пошто системи ВИ вероватно дају препоруке за акцију које служе као улазне информације за човеково доношење одлука, војно особље можда неће довести у питање препоруке, неће имати времена да их критички процени или једноставно неће моћи да разуме како је систем дошао до својих закључака. Може се зато рећи да, ако човек заснива своје војне активности на препорукама ВИ, такво превелико ослањање на предлоге система може значити да систем *de facto* издаје наређења људима. Могуће је и да послужиоци и војници на нижим хијерархијским нивоима, који примају упутства путем информационе технологије, неће моћи да знају да ли је дато наређење креирао човек или систем ВИ. Да би се спречиле такве ситуације, војне доктрине и директиве би морале да успоставе транспарентност у вези са процесима који се односе на наређења (Vestner 2023, 20-21).

Укратко, разматрајући разлику између савременог менаџерског приступа управљања и *Auftragstaktik* директивног командовања који је развио Карл фон Клаузевиц, а који је постао основ немачког војног

командовања у 19. веку, којим се потчињеном само одређује циљ и време извршења задатка, а оставља му се иницијатива и слобода да изабере начин његовог извршења, разумно је претпоставити да ће системи ВИ бити највреднији за оружане снаге када им се приписују високи нивои аутономије, слично *Auftragstaktik*. Међутим, овај закључак нас враћа на фундаментално питање колика аутономија може бити дата системима војне ВИ.

ЗАКЉУЧАК

Вештачка интелигенција се брзо развија и сваки покушај предвиђања њених граница вероватно неће дати тачну прогнозу. Она са собом доноси велике могућности, али и изазове. Вештачка интелигенција може да буде моћан мултипликатор војне силе. Апликације ВИ могу да обезбеде конкурентску предност оружаним снагама тако што убрзавају доношење одлука, трансформишући ООДА петљу за доношење одлука и унапређујући способност командовања, контроле и надзора. Вештачка интелигенција, као и свака револуционарна технологија, вероватно ће изазвати конкуренцију између војно снажних држава, што може довести до безбедносне дилеме, нарушити предвидљивост сукоба и повећати изгледе за њихову ескалацију.

Вештачка интелигенција има потенцијал да утиче на војне операције у свим доменима и у великим размерама. Степен утицаја ће углавном зависити од будућег технолошког развоја, али и од улоге и функција које ће оружане снаге доделити ВИ. Међусобни однос између ВИ и главних аспеката припреме и извођења војних операција ће се највероватније мењати са развојем технологије, али и са већим искуством оружаних снага са системима ВИ, са изменама организационих култура и друштвених вредности.

Оно што се поставља као суштинско и основно питање је међусобних однос и интеракција између војника послужилаца и система са ВИ. У контексту стратегије, системи са ВИ ће вероватно подржати војну стратегију, посебно за активности предвиђања и планирања. Људски фактор у дефинисању стратегије ће вероватно остати кључан јер се стратегија ослања на инстинкт, креативност и вредности, али то не умањује ризик да војно особље постане превише зависно од ВИ у смислу предвиђања. За војну доктрину, улога вештачке интелигенције ће вероватно бити ограничена на процену

и помоћ у ревизији доктрине. Имајући у виду да доктрина дефинише намену војних снага у једној држави, вредности и организациону културу конкретних оружаних снага, цени се да ће доктрина као документ имати суштинску улогу у дефинисању општих начина на који оружане снаге одређене државе перципирају и комуницирају са системима ВИ.

Вештачка интелигенција ће значајно помоћи војном планирању, посебно због способности ВИ да обрађује сложене и велике количине података, великом брзином и прецизношћу. Као такви, чак и ако системима ВИ не буде поверено да сами доносе одлуке, могуће је да ће се војни планери и команданти, због недостатка времена и сложености ратних прилика, превише ослањати на анализе и препоруке ВИ. Што се тиче Правила ангажовања, она су адекватан документ за разграничење употребе ВИ у конкретним сукобима и за специфичне мисије. У контексту војних наређења, системи ВИ ће вероватно значајно помоћи командовању и контроли, али им неће бити поверено да сами издају наређења. Ипак, у пракси се може десити да се тешко разликују наређења која издају алгоритми од оних које издају команданти. Ово може довести до *de facto* доношења одлука од стране ВИ, слично као у случају планирања.

Може се очекивати да ће технолошки напредак првенствено обликовати будуће модалитете удруживања људи и машина. Војне структуре, стандарди и процеси ће вероватно пратити и прилагођавати се техничком развоју. С тим у вези, врло је важно да се унапред дефинишу основни принципи, вредности и стандарди коришћења ВИ, а не реактивно се прилагођавати технолошком развоју, како се не би суочили са неочекиваним или нежељеним последицама.

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APPLICATION OF ARTIFICIAL INTELLIGENCE IN MODERN WARFARE

Resume

Artificial intelligence is making rapid strides, and trying to predict its limits is an uncertain endeavor. While it opens up significant opportunities, it also presents challenges. AI has the potential to greatly enhance military capabilities, acting as a force multiplier. Military applications of AI can confer a competitive edge by expediting decision-making, revolutionizing the decision-making process, and improving command, control, and oversight capabilities. Similar to any groundbreaking technology, AI is poised to spark competition among powerful nations, potentially giving rise to security dilemmas, disrupting conflict predictability, and increasing the risk of escalation.

At its core, the pivotal question centers on the interaction between human operators and AI systems. In the realm of strategy, official state documents underscore the strategic significance of AI development and deployment in military endeavors. AI systems are likely to bolster military strategy, especially in forecasting and planning. Nevertheless, the human element in shaping strategy remains paramount, as it relies on instincts, creativity, and values. Nonetheless, there remains a concern that military personnel might excessively rely on AI for decision-making. In terms of military doctrine, the role of AI will likely be limited to assessment and aiding in doctrine revision. Considering that doctrine outlines a state's armed forces' purpose, values, and organizational culture, it is apparent that doctrine will play a pivotal role in defining how a state's military perceives and interacts with AI systems.

Artificial intelligence will play a substantial role in military planning, primarily due to its capacity to rapidly and accurately process complex and vast datasets. Even if AI systems are not granted decision-making authority, military planners and commanders may heavily depend on AI

analyses and recommendations due to time constraints and the intricacies of wartime scenarios. Consequently, the line between AI that supports decision-making and AI that makes decisions itself could become less distinct. Concerning Rules of Engagement, they serve as a suitable framework for distinguishing the utilization of AI in specific conflicts and missions. In the realm of military orders, AI systems are expected to offer significant support in command and control functions, though they may not be entrusted with issuing orders independently. Nevertheless, practical challenges may arise in distinguishing between orders issued by algorithms and those given by commanders, potentially resulting in de facto AI-driven decision-making, akin to the planning stage.

Military structures, standards, and processes are likely to adapt in tandem with technological advancements. It is, therefore, imperative to proactively establish fundamental principles, values, and standards governing AI use, rather than reacting to technological developments, to avert unforeseen or undesirable consequences.

Future discussions and research on AI's role in military operations, as well as its integration into strategy, doctrine, operational plans, Rules of Engagement, and orders, should concentrate on the interaction between humans and machines, as this remains the crux of the matter. Striking an appropriate balance between AI's role in military preparation and execution and the effective management of military artificial intelligence is of paramount importance.

Key words*:* Artificial intelligence, strategy, doctrine, military operations, command.

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EUROPE, A SECOND-HAND POWER IN THE AI WORLD

Resume

In this decade we are witnesses and even actors of the establishment of a new technology, which has the power to change psychological realities, but especially in the sphere of politics and economics. The emergence of Artificial Intelligence – or more precisely the huge leap that this technology has made in recent years – has brought a series of relevant questions, both from a strictly scientific point of view and from a practical perspective. Unlike the previous decade, when perhaps part of the debate seemed too advanced, now we are in full competitive reality. It should not be forgotten that the present, if it is competitive, allows human intelligence to assert itself in conferences, articles and volumes. Since Artificial Intelligence brings with it so many changes in such a short interval and in (too) many fields, it is logical that the number of studies on the subject of its implementation should also grow constantly.

Europe's situation in this huge process of change needs to be debated. The specific conditions of the continent raise several issues, and among these, the most important seems to be its position in the global ranking of the implementation of Artificial Intelligence. It is precisely this aspect that I am trying to examine in this text, with the firm promise that in the future I will also research the changes that appear in this huge global competition.

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Key words*:* Europe, Artificial Intelligence, hierarchies, competition, legislation, resources

1. We are in a decisive decade for our entire planet, and in this regard we must not only consider the climate predicament (Earth.org. 2023) and huge demographics, but especially the competition for technological supremacy (Mokyr, Vickers and Ziebarth 2015) between states. It would be a huge mistake to believe that these years will be marked by calm developments, in which scientific efficiency will be the most important criterion for demarcation between countries and private companies, and that is why it is always necessary to draw a broader picture of today's truth, the past that ended yesterday and the future that awaits us tomorrow.

At the same time, to believe that the very recent past is the only one that will give us the answers to technological supremacy in the coming decades is again a mistake. The evolution of states is continuous and long-lasting, with a pattern in domestic and international activities that connoisseurs of geopolitics, sociology, public law, etc. recognise. Moreover, to disregard continental and global economic hierarchies in analysing such an important topic would again be a mistake. Practically, we must be aware that the future – in our view – that will stretch to the end of the century is shaped by a complexity of factors already present, and that the hierarchies cannot all be changed without enormous efforts, which not all actors will be able to achieve, for various reasons.

Although the text will give a certain impression of a treatment from a historical perspective, it is necessary to emphasize once again that we live on a continent that has opened up immense perspectives in the technological development of humanity, but at the same time has been unable to maintain this superior position until today. In relation to the existing financial support programmes on the European continent we will actually understand whether in the long term Europe will be able to have a leading position in the global technological competition, or will be forced to follow what other spaces will create.

The almost total absence from universities of historical knowledge in the spheres of economics, technology, diplomacy and law has left its mark today (Golinski 2012), when unrealistic hopes and plans emerge. Scientific knowledge aims to provide solutions for the common man, but especially for the leadership of states. However, in order to achieve this knowledge it is necessary to read intensively and thoroughly thousands

of data, which were previously identified by other researchers. Scientific knowledge therefore cannot avoid the history of the fields of analysis, but this is very difficult to do, however. The main reason is precisely this absence of historical analysis in universities, which has the effect of not developing the thinking of the higher education graduate in a broad perspective, capable of offering him the subtle understanding not only of some concepts and realities of his time, but of a geographical area specifically, in a clearly defined period of time. As a result of this deficit, today's people will seek answers regarding the implementation of Artificial Intelligence (AI) and the hierarchies it will create according to new models, without looking for patterns in history.

We will see – and the situation of the latest report on the general state of Artificial Intelligence from the year 2023 (appeared at mid-October, 2023) reveals once more – that we cannot evade what for centuries countries and governments have built better or worse, and that certain political-economic considerations will also have a major role in shaping the future of this important technology.

We insist on this perspective of analysis – which could be considered easy, perhaps – because AI is today seen not only as a new technology, but primarily as a weapon necessary for states to assert themselves geopolitically in the various regional and global competitions (Bächle and Bareis 2022). It is the purpose of any new invention to be able to be analysed through the prism of the power it offers to the user, but humanity has never come so close to shaping its own intellect. Being therefore a huge capacity brought before the public, it arouses interest from all angles of analysis, but governments will do what history shows us that they know better: namely to act with it in the sense of maximizing their own powers domestically and at international level. It is therefore necessary to better understand not only the AI technology itself, but especially what it will allow governments to do, because in the end the state power action is the one that either leads a country to war, or to dictatorship, or to regular and harmonious development (Indermit 2020).

2. One of humanity's dreams was and is to find intellectual partners of its own in the world around it, and to this end fairy tales (and the fantastic creatures in them) and animals have been endowed with various anthropomorphic qualities. Obviously, none of these have succeeded in having the qualities that humans' desire, but the dream of man (viewed generically, as a being in the universe) has continued to exist.

The invention of various machines at the end of the 19th century, however, paved the way for influencing the minds of others at a scale and speed beyond anything that had existed before. Electricity and radio waves would foreshadow the first quality of the idea of continuous intelligence – based on electricity – that could communicate with and influence man (Headrick 2009). The emergence of these two foundations of the development of modernity will be followed in time by the two world wars, which will have the effect of generalising radio communication and housing with continuous access to electricity, the two positions becoming an obligatory standard of housing and public housing construction.

Once the most important part of the human standard of living was fixed, the development of the ability to increase the quality of life continued, and in this respect several inventions appeared, among which those that simultaneously fulfilled two purposes stood out. The first of these was related to increasing the professional capabilities of man and companies, and the second was hedonistic, whereby a greater amount of entertainment was to be accessible in everyone's home, according to their own tastes. The invention that achieved this was called the computer, and the system that facilitated the connection and exchange of professional and entertainment data and resources was called the Internet.

The romantic period of computers and the Internet ends somewhere towards the beginning of the 21st century, when much of the global political system will also shift to another dimension, predominantly economic. Specifically, while politics has been the "first violin" of human life, and its foundations have usually been rooted in military and demographic strength, the 20th century – especially after the Second World War – is changing the balance of power within each country, with economics and its benefits becoming more important than the strength of arms.

The two very bloody confrontations of the first half of the 20th century will force governments to think more logically about foreign policy, on the one hand, but they will also raise an intractable problem for them: improving the quality of life of ordinary people. After 30 years of massacres and weapons taking the lives of a large percentage of the planet's population – and here we consider that in 1927 alone the planet's population reached 2 billion (Ritchie et al. 2022) – there were some precise tasks to be accomplished. First of all, to ensure a social and especially medical insurance system for those who had fought, but also for the civilians who had also borne the economic and psychological war costs. A system was also needed for the orphans and widows. Hence the need

to redesign the political-administrative system, at great cost to national budgets – an issue that will play an important role in this decade in terms of the costs of the substantial implementation of Artificial Intelligence.

All these changes in the budgetary and social systems of the countries involved in the war – not by chance, as they were also the most technologically advanced – required a policy assumed by governments, parliaments and parties. However, they could not and should not become involved to any great extent in the life of the individual, and hence the need for entertainment for those who a few years before were suffering from hunger, cold or other ailments in trenches and homes. The immense sacrifices and the mental costs induced forced an "explosion of hedonism", which would happen in the next decades on a scale unique in history. It was precisely this desire to relax and/or forget the traumas that would be at the root of the development of electronics as a technical tool to achieve these desires.

The development of electronics would follow this logic, because it was necessary to satisfy the interests of the ordinary man at the lowest possible cost, and the development of information technologies was slower, primarily because of the major costs of computers at the beginning of their "history". Being very large and very expensive, they could only be bought by large companies and public institutions, and their operation was also very difficult. *Per a contrario*, electronics for the common man was making progress, producing reliable products that sold at low cost, allowing greater relaxation for the common man and a breakthrough in the entertainment industry – the best music and movies came out in the first 3 decades after World War II.

3. However, this growth in electronics and information technology will not be evenly spread, with a single growth pole on the one hand, and three zones on the other. The USA, through the power gained during the two conflagrations and the fact that it had an intact industry, was able to lead the competition in the development of information technologies, followed in time by Western Europe, Eastern Asia (the Far East) and the space of the communist states, in this order. Not by chance, this order of technological development was inversely proportional to the percentages of the destruction of industries in the two wars – which had obviously been followed by the loss of the lives of many engineers able to contribute substantially to the progress in this sphere of economic activity.

Technological progress followed this geographical line from a simple perspective, relative to the available resources, as well as to the particularities specific to each country.

Thus, Japan will not have the right to spend military large sums, so that the percentages of the freed budget will be directed towards education, and the technological progress of the country will be huge and recognized by all potential buyers of electronic products. Towards the end of the 20th century, South Korea will also assert itself in this field, but after it will have drawn a different political path, also benefiting from large-scale investments in education. Taiwan, Hong-Kong and Singapore will also benefit from a demographic concentration in a small area, as well as from the amounts invested in education – in the first 10 years after independence, Singapore allocated 30% of the national budget to education (Kissinger 2022).

The same post-war period will be marked in Asia by a complete separation of economic development options. If the western part of the continent corresponds mainly to the Muslim space and the great oil discoveries, in the eastern part the natural resources situation will leave few options for the political leaders. In addition, the two areas had a different specificity as a result of the war itself – the Muslim countries being militarily occupied by the victorious alliance, while in East Asia the Japanese military occupation had been a common factor. Thus, the east of the continent was forced to rebuild its countries not only from the perspective of infrastructure, but also by legislative and educational-scientific pillars, which in the future proved to be the key to success. In the west of the continent, however, oil will bring large revenues and generous subsidies from local leaders, as well as maintaining the social typology based on the Muslim religion, which does not encourage much competition within society.

In addition, the emergence of the Israeli state will have the effect of complicating the geopolitical options of the entire Middle East, but also the establishment of a great technological power in this space. The capabilities that Tel Aviv has developed and created will have a huge impact on Artificial Intelligence (Hennessey 2023), making it mandatory to mention this country in any perspective analysis of what this technology will become, with important effects in the future as well, including through reporting on the events of October 2023.

4. The area of communist countries will have a major handicap for a long time, related to the reconstruction of cities and villages after the war. In addition, the establishment of the communist regimes was not done without a clear resistance of the population, which had the effect of an action to eliminate the intellectuals who did not accept the political ideas of the new leaders, and among them were included the engineers who could create new technologies. The communist countries will have an additional problem relative to the development of a deep economy of knowledge. Concretely, this political vision was subordinated to a 19th century way of thinking, in which the different economic structure did not in itself offer great prospects for anticipating the future. In addition, the fact that it was oriented towards heavy industry – iron and steel, metallurgy – which did not offer great prospects for the economy based on intellectual creation, in which we will actually include Artificial Intelligence technology.

The way these countries will structure their cities and national industries will be according to Marx's "manuals" – which were fundamentally far from the truth of economic science – and the consequences are still visible today. In addition, the reluctance that the communist leaders will have towards cybernetics (Peters 2012) will prevent great developments of any civil technologies that could transmit over long distances and quickly information and data of any type. As life does not forgive, the competition lost by the communist states will manifest itself in most sectors of the economy, and the last decade of the last century will establish the dominance of technologies produced by companies from countries considered "capitalist".

However, the communist space was not a linear one, and not even one that did not have a competition within it. The rivalries in this part of the world were fierce, culminating in the difficult relationship between the great geopolitical forces of space, namely the Soviet Union and China. The competition between the two great political, economic and demographic forces had several spheres of action, but the most important aspect was, in the end, that of the approach to economic problems.

As a result of a diplomacy different from that of the European countries, after 1972 China will have a special relationship with the US and hence, a great freedom of action in its part of the continent. Perhaps justifying this relationship, China will adopt at the end of 1978 a set of measures necessary for economic openness towards the common individual, and as an effect of them it will be observed that

in the following decade the economic growth will become continuous. The foreign investments that appeared quite early in China will further strengthen the capabilities of this country, which was more pressured than the Soviet Union by the problem of food shortages. The cheap and abundant labour thus allowed a faster development of some economic sectors that could provide reasons that poverty could be substantially reduced – which will happen in the following decades substantially.

At the same time, the 1980s will prove decisive for both great powers of communism, which will share some of the problems, but differ in others. Concretely, the economic weakness of the Soviet Union could no longer be corrected, regardless of the efforts that the companies of this country would have made, and from here to the need to change the accents in the political sphere – it should be mentioned that Marx believes that politics follows the economy.

The US's exit from the crisis situation of the 1970s – overcoming stagflation and the adoption of electronic innovations in most sectors of the economy – will put additional pressure on the Soviet budget. The impossibility of winning the economic and technological competition becoming evident, the age typology of the leader will change completely, so that it will be considered that a complete reconstruction of communism is necessary. As this was impossible in a practical way, the ideology itself not offering options for the development of the private economy, and the adoption of any substantial innovation needed the agreement of the center, the Soviet Union will succumb including in the international political competition.

China will not have this problem, and the economic growth that started in this decade will finally give millions of people affected by previous naive experiments a chance to consolidate their wealth. China's continuous decade of growth will eventually lead to a need for change throughout society, and the specific demographics of the country will provoke protests in several cities. The cruel reality shows that the Marxist-style communist ideology had nothing good to offer, but the freedoms offered by Deng Xiaoping managed to bring bread to many people's tables. From here to the request for deep reforms, both by the citizens and by the active party, it was only a step, which will be taken in the years 1988 and 1988, especially since the Chinese leader was 84 years (being born in 1904).

The protests in China will also be encouraged by the fact that communist Europe – the mirror zone in fact for any communist leader,

regardless of the continent where it is located – was starting from 1988 the final phase of Marxist ideological domination. The first part of 1989 increases the pressure in the entire system of communist countries, Poland, Czechoslovakia and Hungary entering the last phase of eliminating this ideology, an aspect that could not escape China's attention – especially since in this sphere there is also anti-communist propaganda through the radio. The pressure will increase, and at that moment the paths of China and the Soviet Union will completely separate: the leaders from Moscow will not intervene militarily, and will begin to manage an increasingly difficult political-economic situation inside their own country, while in China Deng Xiaoping will affirm the party's obligation to lead the country regardless of the costs of an internal repression, which will happen at the beginning of June 1989 (Pei 2020).

The result can be seen today in terms of the development of Artificial Intelligence technology. The Russian Federation will have an evolution open to new technologies, because the loss of economic competition will allow awareness of the deficiencies of its own enterprises in the field of communications, while the Chinese communist leaders will never accept another perspective than that of their own total power over the people. Thus, all the technologies that China will develop will have as their applicability first the collection of data necessary for the surveillance of citizens and the prevention of any form of their riots, regardless of the costs that the economy would pay. The situation of Jack Ma, the creator of an economic empire on the Internet – almost eliminated by state intervention in 2022 – will reveal from the beginning that any technology that will be created in China will only be able to reach a higher level if the Communist Party needs it – or at least he will consider that his political monopoly is not threatened.

5. Western Europe was in this interval of 45 years (1945 – 1990) only a shadow of the great imperial power of the past centuries. Reduced to a minor dimension in geopolitics, they will also have societies to rebuild, but starting from a standard of living different from that of Asia and Africa. Although its borders were more stable than those of the Eastern European area, the human costs were high in the two wars, and the public pressure was the greatest that the governments could encounter in the post-war period. From here, we notice a legal resizing not only of the constitutions, but especially of a strong social protection system, which will have as its goal – and effect – increasing the degree of life satisfaction.

The increase in the standard of living from the post-1950 period will have the effect of stimulating the demand for products necessary for both quality of life and industrial progress. Along with North America, the Western European area will represent the main engine of economic and technological growth, and the most important demographic area from the point of view of purchasing power. This meant that, at least in the first two decades after the World War, a company could only be successful if it managed to reach consistent market shares both in North America and in Western Europe.

In the long term, however, this approach would not be favourable to the continent. Although a good part of the content of the rights of a social nature was necessary, the taxation system that paid these public expenses increased the deficits of the national budgets, hit people's purchasing power and laid the foundations for a specific exodus of human intelligence (brain-drain). The reduction of demographic growth also begins at the end of the period of supreme geopolitical confrontation (the Cold War), so that the USA completely takes the initiative not only in terms of competitiveness and productivity, but especially in terms of demographics and the recruitment of elites.

European companies will face a major problem in the mentioned period and from a geopolitical-psychological perspective, which has important effects until today. Concretely, the decolonization process started after the war – which will culminate in 1960 year – had as its subject the liberation from the Western European countries, which left behind resentment towards the metropolises. Even if, to a good extent, many European states kept their influence in the two decolonized continents, however, the investments from the former metropolises were no longer so appreciated, which offered the USA and later China an additional opportunity to gain influence, and implicitly to diminish the power of Western Europe.

The changes of the years 1989 – 1991 were of a unique depth in history, and their effects are to a large extent irreversible. They will have an equally unique effect in history on the same European continent, because it will offer the possibility of a type of broad, juridical-administrative-economic and even political associations. The release of a huge space from the perspective of customs controls favoured tourism and industries that take advantage of the freedom of transport, which constituted a substantial progress compared to the political separation imposed for over four decades.

At the same time, Western Europe was faced with a problem it had not thought about, and which had no solution manual: the introduction of more than 100 million Central and Eastern Europeans into its own political-economic system. The process took a long time – in fact, even now it is not completely completed – and had many obstacles to overcome. In addition, the normal deficits of each country on the continent have been increased for several years by the existence of wars, which will disrupt certain international transport routes, on the one hand, and which will deepen the imbalances between some former communist countries and Western Europe.

The great political transfer from the west to the east will be an extremely expensive one, even if in recent years there has been constant economic growth in the eastern and central part of the continent. The juridical-economic conditions of Western Europe could not be replicated all of a sudden, primarily as an effect of the levelling in the direction of poverty brought by communism. At the same time, the aid provided by the Western states in the former common zone was also collected through taxes, which did not always offer the best reception of the public. Later, the invasion of young people that appeared after the wars in Asia and Africa will constitute another problem for Western European politicians and budgets, which will have to find a solution for something that had not happened on the continent for centuries.

This immense redefinition and redrawing of a political-economic-administrative framework on a quasi-continental scale is unique in history and – again – there is no perfect manual for achieving the most ambitious goals. The organization that was created to implement this gigantic political, legal, economic, etc. operation is called the European Union. Thousands of pages and analyses are written about it daily in schools and universities, but as a rule what is examined less is the correlation between its organization and its power in the geopolitical and technological sphere.

Western Europe was separated for 45 years by a tense political relationship with the communist world, as a result of this situation it will have a united economic action through the EU and will reach somewhat similar levels of development – in any situation, clearly superior to those achieved in the shared part of the continent. Benefiting from a cultural-civilizational similarity, but especially from the absence of communist-type economic levelling, the Western European countries were able to preserve a good part of the assets necessary for the creation and

development of solid companies, in order to enter relatively strong in the competition of the 21st century.

In this perspective, the liberation from communism at the end of the century came as a surprise, but also as a huge source of concern, because the newly liberated countries headed in the vast majority towards the EU. Although the positive aspect was noted immediately – namely, the opening of a market of over 200 million people for Western companies, a great danger was also identified, as an effect of the major differences in living standards between the two parts of the continent, namely an immigration uncontrolled and large proportions of the inhabitants from the recently liberated part of the continent to the richer west.

The only solution in this situation was the development of programs for the economic uplift of the centre and east of the continent, which had to be financed with large sums of money by the western countries. At the same time, this money was taken from the budgets of the respective nations, which will benefit from a continental brain-drain, which would be beneficial for their economies. In the end, the whole continent had to win, and the whole world along with it. However, this political-legal and economic resizing has affected the competitiveness of European companies, which in time will lose contact with the big US companies, an aspect that has important effects in today's competition for the implementation of Artificial Intelligence.

6. The political-legal foundations of the European Union are derived from a brutal history of the continent, because most of the member states fought with each other during the last millennium. The long memory of the nations is strengthened by the existence of the oldest universities in the world, which also have the oldest libraries in the world, which ascertain numerous facts from the past and educate leaders as well as ordinary people in plurivalent directions, which never exclude competition between countries.

Such an intellectual-political complex is found only in Europe, the other continents not having a comparable history. However, it is known that history is rich and full of victories – bearing in mind, for example, that Europe will colonize all other continents, changing political, linguistic, ethnic hierarchies, etc. – it also creates a unique ambition, as well as a fierce defence of what is national. Coupled with the fact that far too little time has passed since the two great world conflagrations – although they were primarily European (Kissinger 2014) – the idea of defending the national interest becomes fundamental and impossible to abandon.

All this characterization of European states – and especially of EU member states – is obvious and cannot be hidden or modified, and the author does not formulate a criticism of this typology. Not criticizing a political-legal reality, based on a real historical situation, does not mean not noticing what advantages it has, as well as what problems it complains about in practice. We say this all the more because the European Union is not a construction that will fall apart, because it is based on several principles different from those of other multi-national states, the most important of which is that of limiting the negotiation of entrusted competences by the national parliaments of Brussels.

So what do these characteristics mean? First of all, the establishment in the European Union of the rule of unanimity for the any situation voting – regulation, directive, political decision. Basically, the logic of this type of vote is easy to understand, in relation to the differences in economic power within the continent – in its absence, it could quickly end up that the countries with substantial economic power completely decide the future of the other EU member states. Let's not forget that one of the causes of the British vote to leave this political construction was precisely the type of votes, because in certain moments it was difficult to reach consensus, and in others the mechanisms were too slow to effectively adopt a specific decision.

The rule of unanimity has its problems in the matter of Artificial Intelligence, and this will be observed both at the level of the United Nations Organization and at that of the European Union. Concretely, when it is necessary to adopt quick measures – and for this we must remember the recent coronavirus crisis – the legal (and political) will must be manifested quickly. Each day of delay can mean deaths (due to the virus, for example), or the loss of contracts and higher positions in the global economic hierarchy.

However, Artificial Intelligence is undoubtedly a technology that acts quickly and does not allow delays of even a day – its applications being huge, and not only in the civil field, but also in the military. On a planet with low-quality national leadership – on all continents – but with a difficult demography and a difficult climate situation, tensions are rising, and the use of AI begins to have a military purpose first, and only then a useful one for society and peaceful life.

The slowness of the decision in the European Union therefore offers other perspectives to the national states, which obviously have a firmer and more quickly applicable will. However, here appears the

second objective aspect that reveals that the entire European continent will not be the one that will ever win the global competition in the field of Artificial Intelligence – namely, the financial strength of each individual state.

Unfortunately, here the situation is the most difficult possible, because the most developed economy in Europe does not exceed 4.2 trillion dollars as GDP (Germany GDP 2023). Even if among the first 25 economies of the world 13 are from Europe (Silver 2023), between the 2nd and 3rd places (which do not belong to this continent) the difference is over 10 trillion dollars! Thus, the USA and China have values of over 15 trillion dollars in nominal terms, while Germany will not reach the threshold of 5 trillion in the coming years.

The consequence is summarized in two remarkable documents, both of which appeared in mid-October 2023:

Annual Report to Congress: Military and Security Developments Involving the People's Republic of China – Office of the Secretary of Defence, Washington, 10.19.2023, page 97 (OSD Annual Report 2023, 97): "Intelligentized Warfare. In recent years, the PLA has increasingly emphasized intelligentization as a leading element of its modernization plans. The PRC is in the middle of its 14th Five-Year Plan, covering years 2021-2025, in which it outlined the development of intelligentized weapons as important to keep pace with modern warfare. Beijing is applying its research into AI technologies, such as machine learning and human-machine teaming, to military processes, such as decision-making to ultimately gain a cognitive advantage in future warfare".

State of AI Report 2023 (Benaich and Air Street Capital 2023, 111, 132):

US AI companies absorb 70% of global private capital in 2023, up from 55% in 2022 (page 111);

Funding for US defines start-ups hit $2.4B last year, more than 100x the European total...

Alongside the new €1B NATO Innovation Fund, the European Investment Fund is thought to have allocated €200M to defence investment (page 132).

7. Artificial Intelligence is a relatively new technology, which has not yet reached its limits, still having many stages to go through to reach a complete installation in our lives. However, this period of time is spent in a different situation on the planet, faced with major political and

environmental disturbances. The evolution of AI development will be influenced by the goals of this political, but also natural, particularization, knowing that the new technology is a big consumer of water, and some of the countries that want to assert themselves in this field are not very rich in hydrographic resources.

Europe is a continent that still has water, it has enough researchers with a high intellectual level, but it also has many political leaders who are not very competent for the complexity of the situations in which we live. Also – and here is perhaps the biggest problem – it has a major financial deficit, too many budgetary resources being allocated in directions that do not bring enough profit, but only solve punctually different problems in certain proportions.

In a competition with determined and rich opponents, the European states taken individually have no chance; also, their union is impossible, because a set of historical, demographic, linguistic, economic, etc. conditions do not allow such agglutination. For this reason, our continent will most likely be forced to follow the leaders and apply, depending on its own financial capabilities, only those parts of the Artificial Intelligence technology that will be available to it.

History has shown that Europe is the grand prize of geopolitics, and in the event that Artificial Intelligence brings with it a generalized conflict, then the entire continent will be affected, and the post-conflict world may no longer need so much intelligence, either artificial or not.

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ЕВРОПА, ДРУГОРАЗРЕДНА СИЛА У СВЕТУ ВЕШТАЧКЕ ИНТЕЛИГЕНЦИЈЕ

Сажетак

У овој деценији сведоци смо, па чак и актери успостављања нове технологије, која има моћ да промени психолошке реалности, али посебно у сфери политике и економије.

Појава вештачке интелигенције – тачније огроман скок који је ова технологија направила последњих година – донела је низ релевантних питања, како са строго научне тачке гледишта, тако и из практичне перспективе. За разлику од претходне деценије, када је можда део дебате изгледао превише напредан, сада смо у пуној конкурентској реалности. Не треба заборавити да садашњост, ако је конкурентна, омогућава људској интелигенцији да се афирмише на конференцијама, чланцима и томовима. Будући да вештачка интелигенција са собом носи толико промена у тако кратком интервалу иу (пре)многим областима, логично је да и број студија на тему њене имплементације стално расте.

О ситуацији у Европи у овом огромном процесу промена треба расправљати. Специфични услови континента покрећу неколико питања, а међу њима се чини најважнијим његова позиција на глобалној ранг листи имплементације вештачке интелигенције. Управо тај аспект покушавам да испитам у овом тексту, уз чврсто обећање да ћу и убудуће истраживати промене које се појављују у овој огромној глобалној конкуренцији.

Кључне речи: Европа, вештачка интелигенција, хијерархија, конкуренција, законодавство, ресурси

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PERSPECTIVES OF IMPLEMENTATION OF ARTIFICIAL INTELLIGENCE TOOLS IN RESEARCHING COUPS D'ÉTAT

Resume

The study of coups d'état emerged and reached its peak during the second half of the 20th century, coinciding with the global *Cold War* and centring around examination of coup activities occurring predominantly in African, Asian, Middle Eastern and Latin American countries. This interest was predominantly focused of description of the phenomenon, as well as on the search for its root causes and results. As the *Cold War* ended, so did the interest for coups started to diminish, and some researchers even dared to pronounce this phenomenon a thing of the past, due to global promotion of respect of national sovereignty and integrity and implementation of democratic practices. However, this phenomenon persisted and re-emerged in the beginning 21st century, especially on the African continent, only to escalate with the time passing by, and reach its *Cold War* tempo by the beginning of the second decade of the century. Having the renewed interest for coup study in mind, the author will present the current practices in the study of coups d'état, as well as examine the possibilities of using artificial intelligence-assisted tools in the service of operationalization and perfecting the study of political violence, with the goal of introducing new methods of research into the field. With the use of content analysis, as well as theoretical examination of benefits offered by the omnipresent artificial intelligence-assisted tools, the author will provide an answer to the following research question:

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Which artificial intelligence-assisted tools can improve the study of coups, and in what way?

Keywords: coup d'état, political violence, artificial intelligence, machine learning, statistics, predictive analytics

INTRODUCTION

On March 04, 1861, in his inaugural speech, the 16th American president Abraham Lincoln addressed the nation with the following words: "This country, with its institutions, belongs to the people who inhabit it. Whenever they shall grow weary of the existing government, they can exercise their constitutional rights of amending it, or exercise their revolutionary right to overthrow it". A century later, in the sixties of the 20th century, on a different continent and in a different context, the decolonization process in Africa was coming to an end, with only a few countries still battling their colonizers and among themselves in order to achieve independence. As the first independent nations emerged on the Arican continent, so did the Nietzschean concept of the *will to power*, driving strong political figures of the national liberation struggles to take strong hold on weak *quasi* democracies of the countries in the making, thus inciting the local population to rebel, stage revolutions and overthrow governments. And as the colonizers predominantly focused on creation of army-like organizations in the country, thus enabling schooling overseas for African officers and military men, it was more than logical that the only force able to oppose the new *leaders*, much of whom were not democratically elected, but appointed by the departing colonizers, was only to be found among the military staff. Namely, belonging to a structure such as the military, as well as the cult of the warrior, were much known phenomena in African cultures, cherished with almost *mythical respect*. Therefore, when African people grew dissatisfied with the incumbent regimes in many countries throughout the continent, they rightfully turned their eyes towards the army. Hence, the instances of coups d'état became a commonality in African politics, as well as the most utilized method for government overthrow, whether it be justified or not.

Looking back from the current standpoint, we can draw the line and count as many of 43 out of 54 countries in Africa which fell under the

influence of unconstitutional overtake of power through staging a coup d'état, thus proving the point that the cult of a strong military leader and the trust of the nation in the military was indeed an African trend, not restricted to single African countries. For the purpose of this research, let us define *coup d'état* as a politically neutral, either violent or bloodless unconstitutional seizure of power, conducted by the local armed forces (Luttwak, 1969, 11-12). This action is usually conducted in five stages, consisted of coup planning, coup organization, coup execution, coup proclamation and legitimization of power. Albeit, not every coup-maker makes it to the final stage, and thus, we might distinguish coups as being *successful*, *unsuccessful* and *foiled*, with a quasi-coup category, depicted in *faux* coups. *Successful* coups are characterized by the full completion of the coup-making cycle, that is, the final stage of legitimization of power is reached, usually through formation of *Military Transitional Councils*, led by the military junta leader, and consequent organization of democratic elections, usually at least two years into the rule of the junta. In order for a coup activity to be deemed as *unsuccessful*, first three stages of the coup must be present, albeit the third phase, revolving around coup execution, must be interrupted. In this scenario, the final goal of government overtake must thus be not completed, albeit some action must be present in the streets. Because, without reaching the third phase of coup-making, coup-makers remain entangled in a *foiled* coup, which is most often described as a coup that never were, that is, a planned activity that did not get realized. Such coups embody in two forms – as true *foiled* coups, in which the intelligence community and other security forces succeed in detecting the overt activity of the renegade group, as opposed to a *faux* coup, which is usually a coup-proofing measure introduced by the incumbent regime, and directed towards creating a fertile ground for making arrests of the known opponents, and thus nipping the idea of a possible rebellion in the bud.

As we have previously stressed, the study of coups was most pronounced during the *Cold War* era, given the higher occurrence of such attempts and successful overtaking of power, only to diminish with introduction of the *second independence* of African states (Schraeder, 1995, 1160), depicted in the third wave of democratization of African countries, in light of the dissolution of the USSR and sudden shrinkage of foreign power interests in the region by the end of the 1980s. This retreat of foreign powers from the continent, as well as the belief in democracy, drove many researchers and political analysts towards

pronouncing the era of coups d'état as a thing of the past, thus causing a decrease of research of the topic. However, we should have in mind that even the first years of the 1990s ended up being marked with many grim forms of political violence, i.e., ethnic conflicts, civil wars, and coups d'état as well, thus proving the initial idea of coups being a thing of the past wrong. Namely, when speaking of coups d'etat, it should be noted that only in the 1990s, the African continent suffered from a total of 20 successful coups[1], as well as four coup attempts[2]. The coup occurrence persisted in the 2000s (seven successful and seven coup attempts)[3], as well as in the 2010s (nine successful coups and 16 coup attempts)[4], while since the beginning of the decade of 2020s, at the moment of writing this research, a total of eight successful coups[5] and 10 coup attempts[6] were recorded. Thus, since the declaration of death of the coup activity in Africa, a total of 44 successful coups and 37 coup attempts were recorded, thus negating the commonly present hypothesis that coups in Africa are "a thing of the past" (Birikorang, 2013:1). Moreover, we must stress that the decade of 2020s is currently only in its first years, and thus, there is a chance that coup activity in this decade shall surpass the other decades, thus confirming that coup execution has reached its

[1] The coups in question are the following: Lesotho and Chad (1990), Mali, Somalia and Lesotho (1991), Sierra Leone and Algeria (1992), the Gambia (1994), Comoros and Sao Tome and Principe (1995), Niger, Burundi and Sierra Leone (1996), DR Congo, Congo and Sierra Leone (1997), and Niger, Cote d'Ivoire, Guinea Bissau and Comoros (1999).

[2] The coup attempts in question are the following: Nigeria and Zambia (1990), CAR (1996) and Zambia (1997).

[3] The successful coups in question are the following: Burkina Faso, CAR and Guinea Bissau (2003), Mauritania (2005), Guinea and Mauritania (2008) and Madagascar (2009); coup attempts: CAR (2001), CAR (2002), Sao Tome and Principe (2003), Chad and Ecuatorial Guinea (2004), Chad (2006) and Zimbabwe (2007).

[4] The successful coups in question are the following: Niger (2010), Egypt (2011), Mali and Guinea Bissau (2012), Egypt and CAR (2013), Burkina Faso (2014), Zimbabwe (2017), Sudan (2019); the coup attempts in question are the following: twice in Libya, once in Benin and Comoros (2013), twice in Libya, once in the Gambia and Lesotho (2014), Burkina Faso, CAR and Burundi (2015), Burkina Faso and Chad (2016), Egypt and Gabon (2019).

[5] By October 2023, the following coups were recorded to have happened in the decade of 2020s: Mali (2020), Sudan, Mali and Guinea (2021), two coups in Burkina Faso (2022), Niger (2023) and Gabon (2023).

[6] By October 2023, the following coup attempts were recorded to have happened in the decade of 2020s: Sudan, Niger and CAR (2021), Mali, Gambia, Guinea Bissau and Sao Tome and Principe (2022) and Sudan, Sierra Leone and Burkina Faso (2023).

previous glory and is once again becoming the most preferred method for government overtake and change in power.

Given the current state in African politics, it is more than obvious that researching coups d'état should once again step from the shadows and take the fore, especially since there is much evidence that, in this case, the phenomenon of violence overspill might play quite a significant role on the continent, and thus enable and empower other nations and other armies to take up similar activities, and depose the incumbent leaders via coups. Hence, there is a growing need for examination of the olden practices in coup research, as well as the current trends in the research of familial political violence phenomena, with introduction of new methods of conducting research, having in mind the pronounced use of artificial intelligence-assisted tools not only in conduct of political violence, but within its research as well.

RESEARCH OF COUPS D'ÉTAT: THE PAST AND PRESENT OF THE SCIENTIFIC APPROACH

Even though the study of coups d'état has reached its peak in the *Cold War* era, this is by no means a phenomenon emerging in the 20th century, given that the term *coup d'état* itself was coined in the 17th century by the French, representing, at the given time, "any sudden, decisive political act, especially an important and unexpected change in the form and methods of a government" (Online Etymology Dictionary, n.d.). By the next century, with several government overthrow activities, such as the Napoleon I's overthrow of the Directory in 1977 and Napoleon Bonaparte's dissolution of the assembly in 1851 (Britannica, January 05, 2023), the term took a slight shift towards referring solely to the change in power. These instances of unconstitutional overtake of power were examined in great detail by several researchers, among whom Curzio Malaparte stands out, publishing a book entitled *Technique du coup d'état* in Italy in 1931, in which he presented his own observations of several coup-like activities in Russia, Poland, Germany, France, and Italy[7]. At this point, such works were scarce, and thus ground-breaking, albeit consisting solely of description of the phenomenon, without provision of any classification of coups or attempts to provide a definition for such a complex action.

[7] See more in: Malaparte, Curzio. (1932). *The Technique of Revolution*. Morris Productions, Aurora, Il.

Omitting the definition of the term, as well as its classification, coincided with the term being restricted to depicting solely the overtake of power over the government by the part of the armed forces, predominantly military elements or the police, by the mid-20th century, that is, with the emergence of the fight over global dominance, depicted in the *Cold War*. Let us remind ourselves that the *Cold War* era, when speaking of Africa, was characterized by the rise of national liberation fronts, determined to fight for independence, which later, upon becoming independent, took up deposing governments, in accordance with the will of the people, given that these first governments were predominantly constructed by the departing colonizers. Such actions were not restricted to Africa, but emerged in the Middle East, Asia, and especially Latin America, thus drawing attention of researchers of political violence world-wide, in search of a definition for this activity. In this second phase of research of coups d'état, the authors predominantly focused on the causality of coups and coup definition, not restricting themselves to mere defining the phenomenon, but contributed to the science by providing detailed examinations of phases of a coup, as well as drafting first typologies of coups. One of the first political scientists to address the issue of increased participation of army officers in government overthrow was Samuel E. Finer, who took time in 1962 to research, examine and present not only the *machinery* behind conducting the coup, but also the perspectives of the future military interventions, with regards to the motives, the mood, as well as the opportunity given to the armed forces to intervene in politics (Finer, 1962). After Finer, several have attempted to do the same, whilst certain political scientists, such as Huntington and Luttwak, provided us with such contributions to the field, which even nowadays cannot be omitted from research. Namely, Samuel P. Huntington addressed the issue of the rise of incidence of *coups d'états* in 1968, by publishing the book entitled "Political Order in Changing Societies", in which Huntington raised the issue of *Praetorianism*, that is, the excessive and/or abusive political influence of the armed forces in a country, describing three different scenarios in which such behaviour occurs: *reformist coups*, *veto coups* and *institution-building coups* (Huntington, 1968, 192-219). The same year, Edward Luttwak published his ground-breaking work, entitled *Coup d'état: A Practical Handbook*, in which he presented a comprehensive examination of conditions, strategy, planning, and execution of coups d'état (Luttwak, 1969). This book was not only ground-breaking, but controversial as well, given that many have noted that it

has indeed served many army men as a true *handbook* for planning and execution of their coup-making activities, and the book was later found on site in many cases of coup attempts and successful coups. However, the author stressed that his intention was far from providing the future coup-makers with a manual, but was rooted in his interest in the topic and the wish to provide the world with the explanation of this quite frequent phenomenon of the time.

This is why, in the 2016 revised edition of Luttwak's book, the author himself confirmed that the 21st century represents a new phase of research of coup d'état, given that, this time around, many researchers, but also political analysts and especially decision-makers, have more-or-less abandoned the theoretical study of coups, moving on to the research of mechanisms for prevention of coups, commonly referred to as *coup-proofing* mechanisms. Namely, Luttwak himself admits that the biggest change in both conduct and research of coups d'état in the 21st century is rooted in the widespread implementation of specific precautionary measures against coups (Luttwak, 2016, 11), which is especially true when speaking of African countries, given the widespread presence of autocracies, military regimes and despotic behaviour of African leaders, who wish nothing more than to remain in power indefinitely, regardless the common democratic practice of holding elections and the common two-term limit on presidencies, and are thus constantly living in fear from being ousted (Frantz & Kendall-Taylor, 2014, 332).

From this short presentation of development of the study of coups d'état, we can clearly distinguish three phases of research in this sub-field of political violence, defining them as follows: the descriptive phase, the definition phase, as well as the preventive phase. Moreover, we must state that the phenomenon itself has not that significantly changed, but the change refers only to the approach taken by the researchers, taking the natural path from observation and thus description, to constructing definition and thus, typologies of the phenomenon observed, in order to reach the final stage of research – provision of preventive measures, given that the phenomenon examined is deemed as negative, since it falls to the spectre of political violence. The phenomenon itself did not change significantly – it is still planned and conducted by a rogue group from the national armed forces; coup is still being proclaimed in the media (though nowadays, the spread of the news that a coup has taken place is faster, given the omnipresence of the Internet, online media publishers and social networks); the coup-makers still need to legitimize their stay

in power, which is still conducted in the same manner: through formation of a *Transitional Military Council*, withdrawal of the coup leader from the army, his participation and winning the election, or, which is a rare occasion, organization of free democratic elections and abandoning the civil-military rule through enabling the nation to choose the president from the civilian ranks. However, the entire coup-making cycle has been influenced by the rise of globalization, perceived as a game-changing process, ensuring "global electronic interconnectivity that allowed individuals to communicate as never before" (Thomas, 2005), thus introducing several perks of the *New Era* – such as the Internet, the use of social media, but the use of artificial intelligence (AI) as well.

Artificial intelligence (AI) indeed impacted both execution of coups d'état and research of this phenomenon, albeit, in this research, our main focus will be set on examining the current practices in terms of the use of AI in other segments of research of political violence, with the main goal of singling out the fields of AI, as well as specific artificial intelligence-assisted tools that might contribute to the future research into this phenomenon. Namely, due to increasing digitalization and robotization of the society, the use of artificial intelligence in the security context is already on the rise (Ђорић & Милошевић, 2021, 201), thus demanding for the research in such phenomena to follow this trend as well. In this regard, in the next chapter, the author will examine the past, present and future perspectives of the use of artificial intelligence-assisted tools in the research of coups d'état. This examination and presentation will be conducted in five segments, given the current typology of artificial intelligence consists of five categories: 1) interactive artificial intelligence, 2) functional artificial intelligence, 3) analytical artificial intelligence, 4) textual artificial intelligence, and 5) visual artificial intelligence (Ђорић & Милошевић, 2021, 207). However, before we commence our examination of possibilities artificial intelligence-assisted tools have to offer in terms of research of coups d'état, we should define several aspects of the study of coups to be built into this interdisciplinary research[8], given that certain aspects of the study of coups can be improved with the use of such research methods, whilst others might provide us with the same of even poorer results, due to the lack of *human touch*.

[8] Regarding the significance of cyberspace as a domain of conflict, see more in: Vuletić, D. V., Milenković, M. R. & Đukić, A. (2021). Cyberspace as a domain of conflict: the case of the United States – Iran and North Korea. *Vojno delo*, 1/2021.

Having all the previously said in mind, we argue that three sub-fields of the study of coups can be improved with the use of artificial intelligence-assisted tools – coup risk examination, coup triggers, as well as coup-proofing. Before we dabble into examination of possibilities of using AI-assisted tools for researching coups d'état, it is necessary to define them, in order to avoid any confusion and misconception of the given terms. For the purpose of this research, let us define *coup risk* as a set of "structural, background causes" (Belkin & Schofer, 2003, 598) that depict a state of a country as being unstable, thus pointing to a high possibility that a coup might be used as a method for deposing the incumbent president. Coup risk should be, therefore, referred to as a *long-term* variable, or a set of variables, unchangeable and fixed, that continuously build up and lead a country towards a coup. However, these *long-term* variables need a trigger to set the notion of a coup d'état in motion, and thus, we speak of a *coup-trigger*, a *short-term* variable, usually represented in a crisis or a sudden change of the situation in a country. In this case, we are speaking of a factor that "might determine the exact timing of a coup in regimes that suffer from high coup risk" (Belkin & Schofer, 2003, 598). And finally, when researching coups in the present times, we ought to pay special attention to *coup proofing methods*, given that they represent a true variable in its essence, when speaking of their temporal emergence – in some cases, these mechanisms appear prior to a coup being executed, as a sign of fear of the incumbent and his wish to remain in power; in other cases, they are introduced in the aftermath of a *failed*, *foiled* or a *faux* coup, as a counter-measure and a desperate attempt of the leader to remain in power. For the purpose of this research, let us define *coup proofing* as "a set of actions a regime takes to prevent a military coup" (Quinlivan, 1999, 133), or even "a set of strategies that are associated with reducing the militaries' coup-making capabilities" (Sudduth, 2016, in: Reiter, 2020, 314).

In the next segment, we will examine in which way the study of these three segments of coup research, namely coup risk, coup trigger, and coup proofing, can best be improved with the use of all five categories of artificial intelligence-assisted tools: interactive artificial intelligence, functional artificial intelligence, analytical artificial intelligence, textual artificial intelligence, and visual artificial intelligence.

ARTIFICIAL INTELLIGENCE IN THE SERVICE OF POLITICAL SCIENCE: PERSPECTIVES OF IMPLEMENTATION OF AI TOOLS IN COUP RESEARCH

Artificial intelligence is nowadays a term quite present not only in the academic circles, but among the general population as well, especially given the rise and persistent use of several artificial intelligence-assisted tools, such as, for example, *ChatGPT*. Namely, in just a week after this tool was launched online in December 2022, millions of users subscribed, thus allowing us to state that artificial intelligence has, more than ever, stepped into the ordinary lives of many people. Given that the use of AI has nowadays become a trend, it is only normal that academicians and political analysts attempt to implement similar tools into their research as well.

When we speak of artificial intelligence, we ought to say that we are referring to *machine intelligence*, that is, intelligence demonstrated by machines, *taught* to do a wide variety of task as humans do, from speech recognition, to learning, planning and problem solving. This branch of computer science involves "developing computer programs to complete tasks which would otherwise require human intelligence" (Mohammed, 2018, 1). Artificial intelligence has been researched and developed since the fifties of the previous century, only to become quite *visible* and even *omnipresent* since the beginning of the 21st century. Political science did not evade such fate as well, and nowadays, we have many examples of interdisciplinary research, involving artificial intelligence-assisted tools.

The biggest breakthrough of implementation of artificial intelligence-assisted tools in research, as well as in policy making, has been made in the field of counterterrorism studies and practice, whilst in this sub-field of research of political violence, the use of AI centres on prediction of timing and location of terrorist attacks, identification of vulnerability to radicalization, as well as identification of terrorists (McKendrick, 2019), which is most commonly conducted through implementation of data mining, machine learning, and predictive analytics. The biggest contribution of the political science and computer science alliance, in the context of prevention of violent extremism and terrorism, was definitely provided with the use of machine learning tools, predominantly in the field of detection of radicalization and violent extremism-related

behaviour[9]. Regarding radicalization, it must be noted that machine learning approach has been especially used in the analysis of personal profiles of individuals deemed as radicalized, with a special emphasis on monitoring and examination of their online presence (Ivaskevics & Haller, 2022). Similar attempts have been made in the field of researching behaviour of armed forces and groups in the context of conflict monitoring, in which data collection and machine learning-based tool were used for operationalization and optimization of the research (Terry & Dany, 2023). During our examination of present practices and interdisciplinary research in this field, we have also found several initiatives promoting the idea of using machine learning to identify political violence and anticipate conflict, initiated by the EU, and conducted by the Uppsala University in Sweden and the European Research Council, through a project called *ViEWS*[10] (European Research Council, 2022). Machine learning processes were implemented in the research of political science beyond the study of political violence as well, to which testifies the fact that several authors, such as Duffy and Tucker (Duffy & Tucker, 1995, 1), have dabbled into researching political decision making and conflict simulation through implementation of AI-assisted tools. Unfortunately, besides the steps made by the EU regarding monitoring and analysis of behaviour of armed forces and groups with the help of artificial intelligence, the author did not come across any study researching the possibilities of the use of artificial intelligence for researching coups d'état. Having that in mind, in the following segments, we have examined benefits and possibilities offered by the use of various AI tools in every category of artificial intelligence, in order to present the most prominent perspectives regarding implementation of such tools within the research of this phenomenon.

Interactive artificial intelligence refers to all tools and algorithms based on machine learning processes, albeit with an interactive feature incorporated in them. This means that the tools and algorithms in question predominantly rely on their own databases, but build up on communication with users, thus perfecting themselves as the time passes by and completely adjusting the responses and products offered to each

[9] See more in: Đorić, M. (2020). *Priručnik za prepoznavanje, prevenciju i suzbijanje radikalizacije i nasilnog ekstremizma kod učenika*. Biro za operativnu koordinaciju, Podgorica, 2020, as well as in: Krstić, M. (2019). Internet kao platforma za radikalizaciju. *Vojno delo*, 4/2019.

[10] Violence & Impacts Early-Warning System

user. Such algorithms can be found in personal assistants such as *Siri*, *Cortana* and *Alexa*, to name just a few, but also in *ChatGPT*, which represents a mixture of *interactive*, *textual* and *analytical artificial intelligence*. Namely, in terms of *textual artificial intelligence*, we ought to say that these tools have been present in the shadows of many research conducted by political scientists in the recent past, given that it uses machine learning algorithms for recognizing and correcting textual excerpts, thus enabling our *Microsoft Word* software, for example, to correct our spelling and grammar mistakes; it has also impacted our *Google* searches by predicting our needs through completion of our search queries, as well as listing the adequate content through implementation of search and recommendation algorithms, also predominantly based of machine learning. On the other hand, *analytical artificial intelligence* relies predominantly on big data collection and data mining, which is later processed with the use of machine learning tools, thus providing us with the most suitable answer to our question. The best examples of application of such practices can be found in chatbots, that is, computer programs designed to simulate human-like communication with the user, thus building up from the previously mentioned virtual personal assistants (*Cortana*, *Aalexa*, *Siri*) to life-like *companions* such as *Meena*, *Kuki AI*, *Xiaoice*, *Replica*, to name just a few. To this category falls the previously mentioned *ChatGPT* as well, as the most famous of them all. Apart from the three previously mentioned and quite interlinked types of artificial intelligence, the most celebrated embodiment of functional artificial intelligence is depicted in the emergence and wide use of *drones*, that is, *flying robots* (Grossman 2018). However, this type of artificial intelligence has been more present in the conduct of political violence, and less in the research of it; therefore, further examinations of possible implementation of this type of artificial intelligence in researching coups d'etat will not be examined in detail, given that *drones*, as such, cannot be implemented in such research at this point[11]. Finally, the last type of artificial intelligence refers to *visual artificial intelligence*, most commonly used in the field of *simulation*, that is, in provision of virtual

[11] In terms of the use of drones by terrorist and extremist groups, see more in: Ђорић, М. & Милошевић, Т. (2021). Злоупотреба вештачке интелигенције у екстремистичке и терористичке сврхе. *Српска политичка мисао*, број 1/2021, год. 28, vol. 71, стр. 201-221, as well as in: Đorić, M. & Milošević, T. (2020). Uticaj Saudijske koalicije na nacionalnu bezbednost Jemena. *Politika naconalne bezbednosti*, Vol. 2/2020. DOI: https://doi.org/10.22182/pnb.1922020.7

training opportunities due to the lack of real-life opportunities, or them being potentially harmful and/or deadly.

What can be deduced from this short examination of the examples of the use of different types of artificial intelligence in everyday life is the fact that interactive, textual and analytical artificial intelligence indeed have the biggest potential for contributing to the future research of political violence, and especially the study of coups d'état. Moreover, we have determined that such contribution can best be given through application of data mining, machine learning and statistics, which all fall to the spectre of artificial intelligence-assisted tools implemented in the process of *predictive analytics*.

As we have previously stated, *predictive analytics* is an advanced analytical tool, created on the foundation of application of several different techniques rooted in the use of artificial intelligence-assisted tools, such as statistics, data mining, machine learning, etc. It predominantly refers to the use of advanced analytics in predicting future events on the basis of current and historical data, with a consequent creation of predictive scenarios and possible outcomes (Elkan, 2013). Given that we are speaking of quite an advance tool, the process of its application is quite complex as well, and is usually consisted of the following six phases: *requirement collection*, *data collection*, *data analysis and massaging*, *statistics and machine learning, predictive modeling*, and *predictions and monitoring* (McKendrick, 2019). Most phases are self-explanatory, and are indeed present in any common research in political science, whilst *requirement collection* can be translated into *construction of* a *hypothesis* or a *research question*; *data collection* equates to gathering *a corpus of previously conducted research on the topic* or conducting *in-depth interviews*; *data analysis* can be equalled to common examination and analysis of the *acquired corpus*. However, *statistics* and *machine learning,* that is, the fourth phase of this advanced analytical cycle, can be conducted only half-heartedly if conducted in the old-fashioned way – by hand, given that a human researcher, unfortunately, cannot replace the machine. The final two stages of the cycle – *predictive modeling* and *predictions and monitoring*, both refer to creation of predictive models, as well as consequent *scenario building* and *monitoring* the development of the situation in the field. These two can indeed be conducted by a political violence researcher alone, without the help of a machine. Albeit, the results might be short-sighted and scanty, due to the fact that exploiting knowledge possessed by a machine connected to several databases or even

the entire Internet, stripped of fatigue, stress, prejudice and subjectiveness, can provide us with more objective and unbiased scenarios that have a greater chance of being realized in real time.

Until nowadays, the majority of research combining political science analysis and predictive analytics revolved around the study of political violence, thus giving this advanced analytical tool major perspective when speaking of it being applied in the study of coups. Albeit, until nowadays, it has most commonly been applied in counterterrorism studies, though such practice raised some issues among the human rights activists due to its "deleterious effect on human rights, generating spectres of 'pre-crime' punishment and surveillance states' (McKendrick, 2019). Thus, let us ask ourselves: *how can we implement predictive analytics, that is, machine learning, in the research of coups d'état*?

As we have previously concluded, *predictive analytics* is a process predominantly built on *statistical tools*, as well as *machine learning* processes, that, when combined, enable the researcher to conduct the research and find the needed answers in a more timely and comprehensive fashion. Moreover, machine learning processes use *statistical* methods in order to find logical patterns in great amounts of seemingly illogical data, thus providing us with conclusions that might be invisible to the humble human eye. Therefore, we cannot examine the benefits of *predictive analytics* without examining the possibilities that *machine learning* and *statistics* bring to the table. Given that the use of statistical tools in political violence research has been widely researched and examined, and is thus quite present in the study of coups d'état, we will limit our further research solely to researching the possibilities offered by *machine learning*, and thus, *predictive analytics*.

As we have already stated, *machine learning* processes build on using statistical methods and big data collections in order to find logical patterns in a vast amount of seemingly illogical data. Therefore, they offer different possibilities for researching various segments of the study of coups, especially in terms of research directed towards examining and discovering *coup risk*, *coup triggers* and *coup-proofing mechanisms*. What we can see when we group these three terms together is the fact that they all rely on existence of certain historical prerequisites – for example, many researchers base their initial research of *coup risk* on the result of the Hebditch and Connor ten-point *putsch prognosis* questionnaire (Hebditch & Connor, 2005:195), consisting of the widest

range of historically present variables[12] that can be collected through machine learning the fastest; *coup triggers* can be discovered through examination of up-to-date news, depicting the current political, economic and security situation in the country, but also the sentiment of the army and the locals regarding the incumbent[13]; *coup-proofing mechanisms* can best be discovered through examination of not only the current news, given that such mechanisms are usually publicly announced (i.e., shuffling of the high-ranking officers, creation of paramilitary forces, creating the *persona* of a leader, etc.), but also through *linguistic* examination of statements of the incumbent.

Having all the previously said in mind, we must agree that several artificial intelligence-assisted tools, nowadays rooted in machine learning processes, are *up for the job*, albeit three of them possess widest applicative value in terms of researching coups d'état. However, one should have in mind that human factor that is, vigilance of the author of the research, always needed, given that the machine cannot make the same decisions and conclusions as a skilled and well-educated researcher can.

For example, when speaking of providing answers to the questions consisting the previously mentioned *putsch prognosis* questionnaire, one possibility of taking a *shortcut* with the use of machine learning-assisted tools might be application of chatbots, such as *ChatGPT*. Albeit, one should still be careful and have in mind that such tools can only provide assistance, and not be the author, especially having in mind the fact that the data available to such tools might be restricted and most commonly outdated[14], and can thus limit and even harm our research. Moreover,

[12] The questionnaire consists of ten questions referring to the historical and current political and economic organization of the country (history of colonization, unity of the state, economic state of the country, corruption and status of the leader, previous coup history), geographical features of the country (geographical positioning, presence of energy and mining resources), and the history and organization of the army (state of the army, overseas and/or foreign training, strength of the army).

[13] Let us remember that in 2019, the broad discontent of the people with the Sudanese president of the time, Omar al-Bashir, created a fertile ground for the paramilitary Rapid Support Forces – once created as means of *coup proofing* – to overthrow of the then-incumbent, causing a shift in loyalty of this paramilitary force. Hence, sentiments of the people, especially if expressed publicly, can be treated as a strong coup trigger, thus worthy of examination.

[14] For example, when the *ChatGPT* chatbot was asked the following question: *What countries in Africa are deemed as Russian allies*? – the machine learning mechanism provided us with the answer starting with the following syntagm: "As of my last knowledge update in September 2021…". Therefore, upon first examination of the

the results and answers acquired through this method can also be quite limited, general and thus without any scientific value, thus making this tool useful only when researching general information about a country or an event[15].

On the other hand, when speaking of *coup risks*, two specific tools brought by *machine learning* can be implemented in the research in this field: *news and opinion analysis* and *social media monitoring*[16]. These two tools and quite similar and interlinked, and represent distinctive features of *sentiment analysis*, that is, a broader machine learning tool that analyses texts for polarity, whilst the machine, in this case, is trained to recognize emotions presented in a text, defining it as positive, negative or neutral. Based on the acquired data, the machine is later able to *make a decision* whether the media discourse is, for example, predominantly in favour or against the incumbent, the army, or a certain opposition leader, to name just a few examples. Moreover, these tools also builds up on *Natural Language Processing* (*NLP*), a tool extracted from *linguistics*, that can be used for, when speaking of *news and opinion analysis*, analysing a large corpus of news stories with the goal of identifying articles that cover the same story and evaluating the *uniformity* or *balance* of the media coverage, thus discovering the polarity and sentiments in the media (Baker, 2019). On the other hand, application of *social media monitoring* tools in political science research has already been present in the field of political violence, notably in counterterrorism studies, as we have

possibilities of machine learning tools of this sort, the chatbot in question failed to provide us with a valuable and up-to-date answer.

[15] For example, when asked the question – Are there any paramilitary forces in Sudan? – *ChatGPT* provided us with a positive answer, additionally providing us with general information about the Rapid Support Forces. Once again, the chatbot informed us that the knowledge presented relies on examination of data last updated in September 2021. However, giving that the existence of such armed group is historically known (the rapid Support Forces were introduced in 2013, after a series of failed coups against the then incumbent Omar al-Bashir), such answer would in fact aid our research in the topic, if our goal was to implement the *coup prognosis* questionnaire on a specific case.

[16] Regarding the significance of monitoring social media in cases of a coup d'état, see more in: Milošević, T. & Milošević, N. (2022). The Role of Social Media in Coups d'État. In: Stanković, M. & Nikolić, V. (eds.). (2022). *Proceedings of the 4th Virtual International Conference: Pagth to a Knowledge Society – Managing Risks and Innovation.* Complex System Research Center, Niš, Serbia; Mathematical Institute of the Serbian Academy of Sciences and Arts, Belgrade, Serbia, as well as: Mitrović, M. (2020). The media as an instrument of strategic communication in armed conflicts – the CNN effect. *Vojno delo,* 3/2020.

previously mentioned, and thus, its significance is evident. Such tools can be useful for monitoring and examining propaganda material as well, given that, in certain cases, coup-making and coup-proofing processes are announced by powerful propaganda matrix as well[17].

Finally, the study of *coup proofing mechanisms* could benefit from all the previously mentioned machine learning tools. However, this phenomenon could also be examined through implementation of the search of *hidden political ideologies*, given that *coup proofing* is directly linked with the personality, attitudes and behaviour of the incumbent president, whether it be a democratically-elected civilian, or a military junta leader. Such examination and the acquired data would have enabled us with enough information to construct certain conclusions, and even create possible scenarios regarding the situation developing in the field, especially in terms of implementation of certain *coup proofing mechanisms*, as well as their success-rate.

CONCLUSION

Many have believed that the lessons learned in the 20th century and the atrocities of the World War I and World War II would have restrained the humanity from starting new conflicts in the 21st century, especially given the fact that the world has stepped into this new century still struggling from numerous forms of political violence, from terrorism, to civil wars and coups d'état. Unfortunately, the world at peace was only *wishful thinking*, and not the reality we are currently facing. As the centuries changed, we have witnessed not only an increase of violent incidents throughout the globe, but also the impact of technological improvements on these incidents, ranging from the wide use of drones in modern warfare – whether among the national armed forces, local armed groups, or terrorist cells – to wide application of hacking tools and machine learning processes directed towards the enemy, whether it be the state or the individual. Having all this in mind, it is obvious that political science, and thus, political scientists, ought to follow these trends, and attempt to *fight fire with fire*, that is, employ the possibilities

[17] See more in: Jevtović, Z. & Aracki, Z. M. (2019). Propagandna matrica globalnih medija u hibridnim ratovima. *Politika nacionalne bezbednosti*, Vol. 1/2019. DOI: https://doi.org/10.22182/pnb.1612019.8.

offered by artificial intelligence in the research of the contemporary manifestations of political violence.

The study of coups d'état has developed during the last two centuries, going through three distinct phases – the descriptive phase, the definition phase, and the preventive phase – finally reaching the point of being ready to be interlinked with other scientific branches – computer science, with a little bit of *linguistics* on the side. Namely, as was the case with the research of other phenomena from the spectre of political violence, the study of coups has stepped from the books and the terrain to the cyberspace, thus demanding from coup researchers to do the same. Namely, the use of the media, as well as the increasing presence of social media platforms even in the most oppressed African countries, led by life-long despotic leaders of military juntas, has elevated the need for accessing and analysing media coverage, public speeches and the sentiments of the local people, but also the members of the army, especially when speaking of the research of coup risks, coup triggers, and coup proofing mechanisms. Therefore, researchers should be encouraged to dabble into simple computer science research, but also forge alliances with computer science professionals, especially the ones professionally involved in the development of artificial intelligence-assisted tools, with the sole goal of providing the academic community with fresh and open-minded *new* perspectives of the *old* phenomena, such as coups d'état.

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ПЕРСПЕКТИВЕ ПРИМЕНЕ АЛАТА ВЕШТАЧКЕ ИНТЕЛИГЕНЦИЈЕ ПРИЛИКОМ ИСТРАЖИВАЊА ПУЧЕВА

Сажетак

Проучавање пучева је као дисциплина доживело врхунац током друге половине 20. века, коинцидирајући са глобалним *Хладним ратом*, фокусирајући се на изучавање пучистичких активности које су се претежно одвијале у афричким, азијским, блискоисточним и латиноамеричким државама. Ово интересовање се претежно фокусирало на описивање овог феномена, као и на потрагу за узрочницима и резултатима таквог политичког понашања. Како је *Хладном рату* дошао крај, тако је и интересовање за пучеве почело да јењава, при чему су се поједини истраживачи чак усудили да овај феномен прогласе заоставштином прошлости, узевши да је у том моменту на светску политичку сцену наступила глобална промоција поштовања и уважавања националног интегритета и суверенитета, као и примене демократских пракси. Међутим, овај феномен је опстао и поново ступио на политичку позорницу почетком 21. века, посебно у Африци, да би затим ескалирао и достигао темпо из времена *Хладног рата* до почетка друге деценије овог века. Имајући у виду поновно интересовање за изучавање пучева, аутор ће презентовати актуелне праксе у изучавању пучева, а такође ће проучити могућности употребе алата вештачке интелигенце ради операционализације и усавршавања ове области, са главним циљем увођења нових метода истраживања. Уз помоћ методе анализе садржаја, као и кроз теоријско пропитивање погодности које нуде свеприсутни алати вештачке интелигенције, аутор ће пружити одговор на следеће истраживачко питање: Који алати вештачке интелигенције могу унапредити изучавање пучева, и на који начин?

Кључне речи: пуч, политичко насиље, вештачка интелигенција, машинско учење, статистика, предиктивна аналитика

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FROM CYBORG TO CYBERNANTROPHE: BASIC POLITICAL, CULTURAL AND PHILOSOPHICAL DIMENSIONS OF THE CONCEPTS

Resume

This paper will provide an overview and critically examine the underlying political, cultural and philosophical dimensions of artificial intelligence through the analysis of current theoretical variants of the idea of humanism: from posthumanism and transhumanism, through antihumanism to digital humanism. At the same time, the concept of digital humanism is favored, which is affirmative of both the achievements of modern technologies and the spirit/reason of humanity.

Key words: posthumanism, transhumanism, artificial intelligence, cyborg, cyberanthrope.

INTRODUCTION

When we look back at the history of mankind, we can register several disruptive technological innovations, or revolutions, which led to radical changes in social structures, as well as economic and cultural systems. The first radical transformation, the agrarian revolution, that took place some 10,000 years ago, marks the Neolithic transition from the culture of hunters-gatherers to the sedentary agricultural one, marked

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by farming and cattle breeding. This ultimately led to urbanization and the rise of cities. It was followed by a series of industrial revolutions.

The first industrial revolution lasted from 1760 to mid-19th century. Triggered by the construction of railways and the invention of the steam engine, it introduced mechanical production as a standard. The second industrial revolution, spurred by the emergence of electrical power, fossil fuels and conveyor belt, made mass production possible. Cumulatively, by producing an enormous amount of energy that was readily available, they led to the "first machine age of mankind", to what we can refer to as the modern way of life (Brynjolfsson and McAfee 2014). For the first time, our progress was driven primarily by technological innovation.

The third industrial revolution – the Digital or Computer revolution, started in the 1960's. It was marked and accelerated by the development of semiconductors, extremely fast and personal computers and the Internet. Today, we are on the brink of the Fourth Industrial Revolution. It began at the outset of the third millennium and is characterized by the ever- growing presence and mobility of the Internet, cheaper and more powerful sensors an artificial intelligence and robotic machine learning. By enabling "smart factories", it creates the world in which virtual and physical production systems collaborate globally in an extremely flexible way.

At the same time, discoveries are made in areas ranging from genetic sequencing to nanotechnology, from renewable energy sources to quantum computing. The combination of these technologies and their interplay in the physical, digital and biological domains make the Fourth Industrial Revolution fundamentally different from previous ones (Despotović & Glišin 2021; Despotović & Glišin 2023).

Thus, to recapitulate, it is marked by three distinctive characteristics (Schwab 2016): (1) speed – unlike the previous industrial revolutions, Industry 4.0 is developing at an exponential, rather than linear, pace; (2) breadth and depth – building on the digital revolution, it combines multiple technologies leading to unprecedented paradigmatic changes in the economy and society; it not only changes the "what" and "how" we produce things, but also "who we are"; and (3) impact – includes the transformation of entire production systems of companies, industries and society as a whole.

Through the use of computers, artificial intelligence (henceforth: AI, an acronym of the English phrase *Artificial Intelligence* with the same meaning) is the modern manifestation of the inherent human

desire to create artefacts that behave intelligently (Zarkadakis 2020). Thus, the aim of artificial intelligence is to engage computers in problem-solving, something that we generally associate with human cognition and perception. Depending on how the acquisition of knowledge about the world through the brain is understood, we can distinguish between two approaches to computer imitation of human intelligence

According to the "symbolic" school of artificial intelligence, knowledge is the result of logic and therefore, something that arises from combining descriptions of the world or declarative knowledge, and the description of how we make inferences about the world, or prescriptive knowledge. "The non-symbolic or connectionist approach follows a biological understanding of knowledge and tries to emulate the way in which the human brain functions at the neural level. This approach assumes that knowledge is something that must be acquired by the machine itself, rather than being coded by a human programmer. Intelligent machines should learn by imitating the functioning of the human brain.

In light of this, this paper will provide an overview and critical examination of the underlying political, cultural and philosophical dimensions of artificial intelligence through the analysis of the current theoretical variations of the idea of humanism: from posthumanism and transhumanism, through anti-humanism, to digital humanism. In so doing, the concept of digital humanism, which is affirmative of both the achievements of modern technologies and the spirit of humanity, will be favoured. It holds faith in human reason, while respecting the systemic limits of digital technologies.

FROM POSTHUMANISM TO NEW MATERIALISMS – BASIC CONCEPTUAL CHARACTERISTICS

Posthuman is a category originating from cybernetics and information technologies which have been driving the quest for reproduction and reconstruction of the human being. In the light of such developments, questions arise about the definition of man. Whereas previously, as implicitly suggested above, man in the context of biology was viewed exclusively as a product of carbon-based processes, it is now suggested that silicone-based processes, as well as bionics, must be seen as part of the meaning of human. This also implies the impact of electronic technologies, such as the Internet, on the change in the

nature of human relationships, partly because they operate at speeds close to the speed of light.

Although the term "humanism" can apply to a complex set of assumptions and disciplinary agendas that have developed over the centuries (from the early Renaissance to the late 20th century), posthumanist scholars focus on several key features. First of all, on the idea that the object of the proper study of man is the man himself. By definition, humanism was anthropocentric, while posthumanism is postanthropocentric. As a historical phenomenon, it has relied on the renewed and reinterpreted appreciation of the rhetoric and civilization of Greece and Rome, placing man (rather than God) at the centre of its research project.

A minimal definition of humanism as a philosophy includes the following dimensions (Fuchs 2022, 19): (1) humanistic epistemology – people have the ability to use reason in order to produce knowledge about how the world looks, including the use and development of science; humanists critically examine the world's status and critical thinking is part of the humanist approach; (2) humanistic ontology – human behaviour and society are not naturally determined by God, religion, ideology or other authorities; by their activities, social relations and social connections, people constitute society and its various forms, practices and systems; and (3) humanistic axiology – people have the ability and moral responsibility to create a good, humane society; humanists are convinced that it is possible for people to act in order to improve society and mankind's living conditions.

The modern, Renaissance science, strives to achieve an understanding of the natural world, depending on the human reason and powers of perception, towards discovering universal rules and laws. As a subject of Cartesian thought, man could examine the world and explain its functioning with a scientific distance. This perception of man as an autonomous agent, separate from nature, though still included in nature, culminated in the Enlightenment. Posthumanist scholars consider the Darwinist biology, Marxist economists and Freudian psychology as preliminary indications of the disintegration of a unified enlightened subject. Yet, although separation and elevation of man from and above the natural world were challenged by the 19th century development of biology, psychology and economy, positivist science has sought to maintain the subject-object dichotomy even in the 20th century.

For Donna Haraway (Donna Haraway; 2004), the existing political, social, economic and cultural systems do not support the essential truths discovered by science, but narratives told or constructed by science for itself and the world, as well as narratives within a certain political order, which often serve to maintain inequalities in the system. For her, the term "cyborg" comes from science fiction, and not from science as such, even though science later registered similar entities. Cyborg is a paradigmatic case of confusing boundaries, and thus also constructed boundaries, characteristic of all attempts to keep opposed fields separate. Namely, people are inevitably cyborgs, both machines and organisms. The cyborg is our ontology that also gives us our politics. In sum, she argues that a cyborg society leads to the abolition of patriarchate, racism and capitalism.

For Haraway, the cyborg is a cybernetic organism, a hybrid/mutant of the machine and organism, a social reality being, as well as a fictional being. Henri Lefebvre's cyberanthrope (Henri Lefebvre; 2016) is not the same as a cyborg. While a cyborg is a hybrid/mutant creature, more machine that man, a cyberanthrope denotes an ideology of technocracy, of ideologists and their followers who are referred to and associated with the existence of cyborgs, computers and robots in society. The cyberanthrope is an anti-humanist incarnation, a disgraced man-machine, an official obsessed with information systems, scientific rationality, classification and control. He believes in the perfection of AI and computers and that they must bring an unquestionable prosperity to society. He creates a superspectacle, a metaspectacle that makes spectacles of itself and sells spectacles. While the cyborg is a rather neutral category that describes hybrids/mutations of the man and machine and can be used in the forms of domination and emancipation, the cyberanthrope has a totally ideological character. A cyborg is a posthumanist, while a cyberanthrope is an anti-humanist.

Others try to put the changes into perspective without using the cyborg image. David Channell (David Channell; 1991) views our contemporary culture as an intellectual fusion of long-standing Western ideals of organic order and mechanistic rationality. He argues that today, these two trends are coming together in the idea of a vital machine. Bruce Mazlish (Bruce Mazlish; 1993), on the other hand, talks about the human aspiration to gradually overcome its own illusions. It all started with the rejection of the idea that we are at the centre of the universe (overthrown by the Copernican revolution/turn), followed by an illusion

that we are fundamentally different from animals (overthrown by the evolution theory), and our realization that we are not even fully rational (overthrown thanks to Freud's conceptualization of the unconscious). And finally, the fourth discontinuity disappears: an artificial division between organic and mechanical, life and machines.

By contrast, the „Bioluddite" opposition to genetic engineering, nanotechnology and artificial intelligence, gradually built and networked since the 1960's, picked up where the Luddites, anti-industrialisation fighters, left off in the 19th century. While the Luddites believed that protecting the rights of workers requires aa ban on the automation of work, the Bioluddites believe that genetic engineering and human "enhancing/improving" technologies are not safe for use and must be banned.

Posthumanism can be treated as part of the first wave of postmodernism (Stojanović 2013, 2016). In order to better understand the conceptualization of posthumanism, we will first outline the difference between transhumanism, posthumanism, antihumanism, meta-humanism and new materialism. Contemporary transhumanists argue that human nature is an essential process with unsatisfactory orientations that should be modified by technological innovation/means where instrumental benefits for individuals outweigh technological risks. This ethics of optimization/improvement is based on astonishing developments in four areas: nanotechnology, biotechnology, information technology and cognitive science.

Within transhumanism, there are distinctive factions, such as: libertarian transhumanism, democratic transhumanism and extropianism (or extropism, the opposite of entropy). Its persistence in recognizing science and technology as the main advantages in the reformulation of man exposes it to the danger of techno-reductionism. Transhumanism accepts and emphasizes its continuity with the Enlightenment, democracy and humanism.

When we talk about posthumanism, we should point to interrelated but differentiated concepts (Gladden 2018; Herbrechter 2013). The prefix "post" can have different meanings and allows for numerous discursive and argumentative strategies. Thus, posthumanization processes are those dynamics by which society includes members who are not "natural" biological human beings who, in one way or another, contribute to the structures, activities or meaning of society. Society thus includes a diverse range of intelligent human, non-human and parahuman social actors who seek to perceive, interpret and influence the shared environment

and who create knowledge and meaning through their networks and interactions. Currently, posthumanization often occurs as a result of the technologization of human beings, fuelled by the phenomena such as our increasing physical integration with electronic systems, our increasing interaction and dependence on robots and AI, our increasing immersion in virtual worlds and the use of genetic engineering for designing human beings as if they were consumer products.

Posthumanity refers to a set of intelligent beings, human, synthetic or hybrid, which have been created or affected by the posthumanization process, or wider socio-technological reality within which such beings exist. Posthumanism is a coherent conceptual framework which takes the phenomenon of posthumanization or posthumanity as its object. Posthuman can refer to any of the following: a process (posthumanization), a set of entities (posthumanity) or a body of thought (posthumanism).

We can distinguish five types of posthumanism: analytical, synthetic, theoretical, practical and hybrid (Gladden 2018, 40-43). Analytical posthumanism defines "posthumanity" as a kind of socio-technological reality that already exists in the modern world and requires to be better understood. It is mainly focused on the past and present. Synthetic posthumanism defines "posthumanity" as a set of hypothetical future entities whose capacities exceed those of natural human beings and whose creation can either be deliberately realized or blocked, depending on decisions to develop and apply certain transformative technologies (genetic engineering, neuroprosthetics, artificial intelligence or virtual reality).

Theoretical posthumanism seeks to advance our understanding of issues and expand the knowledge of mankind in order to gain a deeper, broader, more accurate and more sophisticated understanding of human beings and the world in which we exist. Practical posthumanism is primarily interested in producing some specific political, economic, cultural, social or technological change.

Philosophically, new materialisms, as specific theoretical scenario of posthumanism, emerged as a reaction to representativist and constructivist radicalizations of late postmodernism, which lost the idea/notion of the material sphere of life (Coole and Frost 2010). This deficiency presumed internal dualism between what was perceived as manipulated by the act of observation and description, on the one hand, and external reality on the other, which thus became unfathomable. New materialisms do not distinguish between language and matter, so that biology is culturally

mediated as much as culture is materialistically constructed. Matter is in no way treated as something static, fixed or passive, as waiting to be shaped by some external force; but is addressed as the "process of materialization". Such a process, which is dynamic, variable, inherently intricate, diffractive and performative, has no primacy over materialization, nor can materialization be reduced to its process qualities.

We can distinguish four types and stages in the development of antihumanism (Žižek 2016, 22): (1) theocentric antihumanism – religious fundamentalisms that oppose secularism; (2) theoretical antihumanism – French structuralism and poststructuralism; (3) deep environmental antihumanism – environmental movements that reduce humans to just an animal species and blame mankind as such for upsetting the balance of life of Earth; and (4) posthumanism and transhumanism – posthumanists are cultural theorists who argue that the current social and technological progress is increasingly undermining our human exclusivity; for posthumanists, humans are a strange species of animal cyborgs, transhumanist, for their part, refer to new scientific and technological innovations (AI, digitalization) that point to the emergence of singularity, a new type of collective intelligence.

The deconstruction of the concept of man is the central topic of Foucault's/ poststructuralist antihumanism. There are three possible based that define it (Fraser 1994): (1) conceptual or philosophical (humanism immersed in Western metaphysics focused on the subject); (2) strategic (call for humanistic values as concealment of the strategies of domination); and (3) normative (humanism as fundamentally undesirable, on the basis that being a subject is in itself a form of subjection). By contrast, posthumanism does not rely on any symbolic death: such an assumption would be based on the dead/alive dualism, while any strict form of dualism is already challenged by posthumanism in its postdualistic process-ontological perspective.

According to Jaime del Val (Jaime del Val; 2022), there is, on the one hand, the humanist and trans-/hyper-humanist idea of the world-body as intrinsically quantitative, calculable, manipulative, controlled, appropriating, based on the old humanist fears and dreams of domination and on deep cosmological ignorance. It is the idea of the world where we are at the centre, ours to oversee and with infinite resources. It is a tradition of dualism and colonialism, guided by a teleology rooted in a transcendent future, a metaphysics of being, form and identity where evolution is conceived as the separation of species for the purpose of domination.

On the other hand, there is an event older, but presently minoritized, tradition of metahumanistic discourses. According to it, the body is defined as an irreducible field of forces whose undefinable dynamism is the very creative force of life that mobilizes evolution in the cosmos. This is not a quantifiable world of the body, but a world in its qualitative variation. It's a tradition, not of being, form and identity, but of formless flow and plasticity, indeterminism and pluralism, evolution as a symbiosis and endless mutation: one's own death, rather than systematic killing done for the sake of longevity. The main problem for this tradition is overcoming the delusions of the disembodied mind which seeks to dominate the body by depleting it. Metahumanism emphasizes the body as a place for amorphous re-significations, extended by kinetic relations as a body-network.

DIGITAL HUMANISM – BASIC CONCEPTUAL CHARACTERISTICS

Artificial intelligence systems are technologies that imitate human intelligence, including learning, perception or problem solving. Artificial intelligence systems are machines that behave as if they are intelligent. AI seeks to make computers do things that human minds do. Not all robots are AI systems and not all AI systems are robots. But the two technologies intersect. AI robots are mechanical creatures that can function autonomously. Intelligent robots don not do things repetitively. They are the opposite of factory automation. Autonomy means self-sufficiency under all reasonable conditions without the need for a human operator. Autonomy means that a robot can adapt to changes in its environment or itself and continue to achieve its goals.

The question is whether people, as natural objects, are subject to the causality principle, whether they are autonomous or heteronomous. There are three answers to this question in philosophy: incompatibilism, compatibilism and semi-compatibilism. (Nida-Rümelin and Weidenfeld 2022, 21-24). Incompatibilists believe that in the world of natural sciences there cannot be freedom and responsibility because determinism and freedom are incompatible. Incompatibilists are actually "naturalists". They believe that scientific laws govern everything that is going on and that consequently, there is no room for the freedom of will. Freedom of will is just a useful illusion. However, the threat of sanctions will influence and determine human action. Naturalism, as an ideology, is

highly present in neuroscience. Invoking the determinism of the brain system, controlled by genetic, epigenetic, as well as sensory stimuli, it denies human freedom and responsibility.

In today's philosophy, the so-called "compatibilism" dominates the discussion. According to this theory, total determinism is compatible with the human freedom of will and action. Even though the majority of these compatibilists are of naturalistic provenance and stick to the idea that everything is ultimately determined by physical processes, they believe that it is nevertheless possible to view people as free and responsible agents. They believe that it suffices for people to fulfil their desires in order to be called free, regardless of whether they are free to choose those wishes or not. This is what enables freedom in a deterministic world. Freedom of action is defined as freedom to do what I want, regardless of how these desires arose. Semi-compatibilism combines agnosticism of free will compatibility and determinism with compatibilism of moral responsibility: determinism is not a threat to moral responsibility, whether it threatens the free will or not.

The Vienna Manifesto on Digital Humanism, published in May 2019, is based on the following principles (Werthner, Prem, Lee and Ghezzi 2022, XII-XIII): (1) digital technologies should be designed to promote democracy and inclusion; (2) privacy and freedom of speech are essential democratic values and should be at the centre of our activities; (3) effective regulations, rules and laws, based on a broad public discourse, must be established; (4) regulators need to intervene with tech monopolies; (5) decisions with potential to affect individual or collective human rights must continue to be made by humans; (6) scientific approaches bringing together different disciplines are a prerequisite for tackling the challenges ahead; (7) universities are the place where new knowledge is produced and critical thought is cultivated; (8) academic and industrial researchers must openly engage with the wider society and critically reflect upon their approaches; (9) practitioners should acknowledge their shared responsibility for the impact of information technologies; (10) a vision is needed for new educational curricula, combining knowledge from the humanities, social and engineering studies; and (11) education on computer science or informatics and its societal impact must start as early as possible.

A minimal definition of digital humanism as a philosophy includes the following dimensions (Fuchs 2022, 50-51): (1) the epistemology of digital humanism – computer technologies and machines generally

differ from people; they lack reason, consciousness, morality and critical thinking; artificial intelligence, robots, big data, computer and digital methods can but must not replace the importance of a human being in society; unlike people, they are unable to critically examine the status of the world; (2) the ontology of digital humanism – technologies in general and computers in particular are not human, social and societal beings; human beings and their activities, social relations and connections make up society; in modern societies, digital technologies shape and are shaped by people and their social relations, but such technologies are not autonomous actors and are different from people, which is why digital machines should not be analysed as if they were people and people should not be analysed as if they were machines; in techno-social systems, humans and machines communicate based on human practices that create this system, and (3) since digital machines are not humans and humans are not machines, it is a moral imperative that machines should not be treated as humans and that humans should not be treated as machines, digital machines are not the cause and the solution to society's problems; society and digital society should be organized in ways that enable the establishment of a good, humane society; digital technologies should be shaped and used in ways that do not harm society and people, but support the establishment of a good, humane society.

Radical digital humanism is a materialist approach to the study, contemplation and development of digital technologies and digital society that is oriented at people's need to free themselves from the digital class society, digital exploitation, digital domination and digital ideology and that is focused on the realization of a good digital society. In the digital age, there are dialectics of subjects and objects, individuals and society, practices and structures, society and technology that are digitally mediated.

Some poststructuralists may argue that digital humanism is yet another of the many meta-narrative claims to truth and thus a form of totalitarianism. The pretentious assumption that there is no truth and universality contributes to the creation of the digital culture of post-truth, "fake news", relativism, fragmentation and polarization of digital society. However, for digital humanism, it is important to stick to and renew the ideas of truth, our common ground, the human being, democracy and universal rights in the digital age (Fuchs 2022, 56).

For posthumanism, digital humanism overestimates the positive capacities of the human being, underestimates non-human action and emancipatory potential of cyborgs and ignores the destructive potentials of

humans. Still, people are not machines, a dialectic of people and machines exists in society. Equating people and machines promotes instrumental reason and instrumental reason has fascist tendencies. People as such as not destructive, but in alienated societies they become subversive, meaning that we do not need to abolish people, but alienation.

For postcolonial thought, humanism prompted racism, white supremacy, Eurocentrism and Westcentrism, so digital humanism runs the risk of being racist, supremacist, Eurocentric and Westcentric project. Yet, particularisms that limit the rights and universality to certain groups are not humanisms at all. Digital humanism emphasizes the common aspects and rights of all people in a good digital society. Historically, humanism has existed in many different versions, so digital humanism should be approached in a transcultural and transdisciplinary way.

CONCLUSION

In sum, we can agree with the argument that posthumanism and transhumanism turn the emancipation of mankind into emancipation from mankind (Žižek 2016, 29). There is a danger that in future, some will still enjoy freedom, while others will be totally controlled and regulated by the digital machinery. Some will become new digital superhumans, those who wield power, while others will form a lower caste of unfree people. Posthumanist development undermines the very core of what it means to be human.

Digital humanism rejects the idea of replacing or transforming humans into digital machines. Instead, it sees digital machines as a possibility which, as part of a struggle for a better society, can extend the benefit of all, help to realize and more fully develop the capacities of people and society.

At the same time, the notion of cyberanthrope is a more critical approach to the interaction of people and cybernetics than the concepts of cyborg and cyberpunk. Cyberanthropes and representatives of aa technocratic ideology that considers computer technologies (robots and AI) as superior to humans and as necessities that must lead to a better society. They criticize the ideologists and ideologies framed by instrumental reason, technological rationality, reified consciousness, digital positivism and technological fetishism.

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ОД КИБОРГА ДО КИБЕРНАНТРОПА: ОСНОВНЕ ПОЛИТИЧКЕ, КУЛТУРАЛНЕ И ФИЛОЗОФСКЕ ДИМЕНЗИЈЕ КОНЦЕПАТА

Сажетак

Овај рад ће дати преглед и критички пропитати носеће политичке, културалне и филозофске димензије вештачке интелигенције преко анализе актуелних теоретских варијанти идеје хуманизма: од постхуманизма и трансхуманизма, преко антихуманизма до дигиталног хуманизма. Притом, фаворизује се концепт дигиталног хуманизма који је афирмативан и према достигнућима модерних технологија и према духу/разуму човечанства.

Кључне речи: постхуманизам, трансхуманизам, вештачка интелигенција, киборг, кибернантроп.

ОГЛЕДИ И СТУДИЈЕ

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METHODS OF INTELLIGENCE SERVICES IN THE FIGHT AGAINST TERRORISM

Resume

Adequate analysis of the struggle of intelligence services against terrorist organizations requires an approach based on the methods and means of action of intelligence institutions. Terrorism is among the most represented security threats in the media and in public discourse. The increasing brutality of terrorist groups and organizations, the frequent mention in the public and the virality of terrorist acts on social networks have led to the creation of a specific fear of terrorism, which is why early detection and stopping of terrorist activities is extremely important. In the field of preventive action against terrorism, intelligence institutions play the most important role. Intelligence institutions primarily use specific methods and techniques for collecting data on terrorist threats, which enables their detection and interception. In addition, intelligence institutions also use non-intelligence methods of combat that require special analysis. On the other hand, terrorist organizations, in addition to carrying out terrorist acts, also carry out activities aimed at disrupting and disavowing intelligence institutions, which further complicates the fight against terrorism.

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Key words: intelligence agency, intelligence methods, non-intelligence methods, terrorism, terrorist organization, terrorist act.

INTRODUCTION

The existence of security-threatening phenomena, including terrorism, requires a systemic and institutional response from the state in terms of the formation of organizations or organizational units or groups within the institution whose mission is to fight against them. Taking into account that all security-threatening phenomena are multidimensional, and that the state opposes them on several levels, it is necessary to apply the principle of division of labour in the creation of institutions that oppose threats in different phases and in different forms. According to the division of activities in the fight against threatening phenomena, the role of intelligence agencies is realized most often on a preventive level, while the repressive engagements of intelligence institutions are restrictive. In terms of preventive action, we can say that the effectiveness of intelligence agencies is particularly important in the fight against terrorism, both because of the harmful consequences of this threatening phenomenon, and because of the effect of panic and fear that they produce. The importance of preventive action is also reflected in the fact that terrorist activities are directed most often against the state government, which is categorized as the greatest threat to the achievement of the goals and intentions of terrorist organizations.

The primary role of intelligence agencies as bearers of intelligence power is the collection of intelligence data on terrorist activities. Intelligence data can be collected from different sources and by means of different methods and techniques. However, sometimes the collection of data is not enough to neutralize terrorist organizations and groups, and intelligence agencies also resort to various non-intelligence methods. The decision on which method to use is made by the heads of intelligence institutions, and in certain situations where the degree of danger is increased and where urgent engagements are required, the decision can also be made by the holders of executive power. The decision mostly depends on the current circumstances and factors, as well as on which method can be used most effectively to prevent the actions of terrorist groups. The fight against terrorism in the action of intelligence agencies and other elements of the national security system requires compliance

with all positive legal regulations and political-declarative acts, which prevents the abuse of the coercive apparatus.

THE CONCEPT OF TERRORISM

The etymological angle of observation leads us to look for the root of the word terrorism in the term terror, which originates from the Indo-European word *ter ortre*, which in translation means great fear, horror, etc. (Simeunović 2009, 86). Although of Latin origin, the word "terror" entered the political and scientific vocabulary through the French language, where it was used for the first time to denote the extraordinary measures introduced and applied by the Jacobins for the defence of the revolution. According to this explanation, "if the stronghold of the people's government in peace is virtue, the stronghold of the people's government in the revolution is both virtue and terror" (Dimitrijević 2002, 16).

Just because the root of the word terrorism has been determined, it does not mean that there is a general consensus about its origin. The forerunner of modern terrorism is linked to the second half of the 19th century and to the anarchist movement "People's Will" which was founded on the territory of Imperial Russia. This antimonastic organization had all the key elements of contemporary terrorist groups, and the main (historical) goal was the overthrow of the then government. Although they did not find support among the people, they carried out numerous terrorist acts, including the assassination of Emperor Alexander II in May 1881 (Miletić 2019, 5).

Each terrorist organization and each terrorist action, especially in terms of different historical circumstances and eras, has its own specificities, but there are also characteristics of terrorism that are universal and valid in all historical and social contexts and in the case of any terrorist activism, namely: use of force or violence; political character; causing fear or terror; threat; psychological effect and reaction; different victims and wider targets of attacks; targeted, planned and organized action; existence of methods, strategies and tactics of fighting; extreme violation of accepted rules; absence of humanitarian segments; blackmail, coercion and inducing obedience; desire for publicity; arbitrariness, impersonality, randomness and lack of discrimination; intimidation; emphasis on the impotence of the state; the perpetrator is an individual, group, movement or organization; symbolic nature, showing others; the unpredictability and unexpectedness of the appearance of violence;

secrecy, concealment; repetition of a series or campaign of violence; criminal, criminal character; claims against third parties (Weinberg, Pedahzur, and Hirsch-Hoefler 2004, 781).

As for the definition of terrorism, it must include all the most important elements, and not only those that seem the most attractive in the populist sense. According to the above, as a multidimensional political phenomenon, modern terrorism can theoretically be defined in the most general terms as: a complex form of organized group, and less often individual and institutional political violence, marked not only by terrifying brachial physical and psychological, but also by sophisticated-technological methods of political struggle that are usually used in times of political and economic crises, and rarely in conditions of achieved economic and political stability of a societies, systematically try to achieve great goals in a morbidly spectacular way, and inappropriately given the conditions, above all the social situation and historical possibilities of those who exercise it as a political strategy. The socially threatening opus of terrorism includes the threat of force as part of intense psychological-propaganda activity, misuse of the Internet for terrorist purposes, kidnappings, blackmail, psychological abuse, assassinations, sabotage, diversions, suicide attacks, individual and mass political murders, and the intention of manifesting less often than actual and potential political opponents, and more often on representatives of the system and innocent victims. As a form of individual, illegitimate, illegal and non-institutional violence, terrorism is always directed against certain institutions of a society, that is, against a government (Simeunović 2009, 80).

Therefore, terrorism has exclusively political interests and is aimed exclusively at the authorities, and in the event that the goals of terrorist activity lose their political dimension, it would cease to exist as a form of threat to national security. Regardless of what form and type it is, terrorism always propagates certain value categories and necessarily contains an extreme ideological-political dimension, which has exclusive views on certain ideas, processes and phenomena, which it seeks to oppose. An important feature of terrorism is the selection of the most effective method, which can achieve the greatest possible effects with the investment of minimal funds (Gaćinović 2016, 49-50).

Terrorism can be scientifically defined in different ways. Viewed from the perspective of security sciences, terrorism is a non-military and unconventional form of endangering national security. From the

point of view of political science, terrorism represents a complex form of political violence directed against the government, while from the point of view of legal science, terrorism is defined as a criminal offense.[1]

As a complex political and (anti)social phenomenon, terrorism is classified according to different criteria. All classifications of terrorism have a primarily theoretical and methodological character and are not mutually exclusive. According to the role of the state, terrorism can be divided into: international (groups and individuals that are under the control of a sovereign state), transnational (groups and individuals that are not under the control of sovereign states – although they may have some support from states that approve their goals), domestic (includes only citizens of a certain country and autonomous non-state subjects) and state terrorism (its bearer is the state within its borders) (Živaljević and Jugović 2014, 8). According to the target-program orientation, terrorism can be divided into: 1. Ideologically motivated terrorism (leftist and rightist), 2. Ethno-separatist terrorism, 3. Religiously based terrorism (terrorism of sects and terrorism based on the interpretation of major religions). According to the means used by terrorists, terrorism can be divided into: 1. Classical (conventional) terrorism, 2 Biochemical terrorism, 3. Nuclear terrorism. Then, according to the methods of action, terrorism can be divided into: 1. Classic (conventional) terrorism, 2. Suicide terrorism, 3. Cyber-terrorism, 4. Narco-terrorism. The classification of terrorists according to the type of actor, shows us that the perpetrators of a terrorist act can be: 1. individuals – individual terrorism, 2. groups and organizations – terrorism by organizations and illegal groups, 3. states and national institutions – institutional terrorism (Simeunović 2009, 83- 85).

The most prevalent type of terrorism is Islamist terrorism, as a subtype of religious-based terrorism, while eco-terrorism, right-wing terrorism (in terms of ideology) and individual terrorism (in terms of the carrier) are on the rise. Islamist terrorism is the most dynamic subtype of terrorism. Extreme Islamism has given birth to a threat in the form of "lone wolves", that is, radical Islamists born or permanently settled in mostly non-Muslim countries, who, in the desire to contribute to the struggle for the embodiment of the idea of a global Caliphate, undertake individual actions, without including any other actor, thus plans for remain

[1] In the Criminal Code of the Republic of Serbia, terrorism and acts related to terrorism belong to the group of crimes against humanity and goods protected by international law. (Criminal Code of the Republic of Serbia 2017, Article 391)

uncompromised by future activities, and the chances of committing a terrorist act are greater. The recruitment of lone wolves is part of global Islamic recruitment internationalism, which, in addition to bringing fighters from all over the world to the war zone, invites all Islamist radicals to contribute to the achievement of a concrete historical goal in their countries. Also, Islamist terrorism managed to manifest itself in the form of a "quasi-state" (Islamic State of Iraq and Syria), where the terrorist organization had control over a certain territory and where it had its own military and intelligence-security forces.

The structure of terrorist organizations consists of management bodies (higher and lower) and branches or units (basic, most numerous units). It is chained with clearly defined relationships between higher and lower parts of the organization. In the highest management body of the terrorist organization, there is also a person who coordinates the "intelligence and security work" of the members of the organization. He is usually some kind of advisor to the leader of a terrorist organization. He is often assigned a team or group of "pseudo-analysts" who process the collected information, plan and program the execution of terrorist actions. The structure and extent of development of intelligence and security components depend on the type and structure of terrorist groups: in the case of terrorist organizations with a military structure, the military intelligence (headquarters) organization is more pronounced; in the case of traditional (smaller) terrorist groups, the model of classic intelligence organization (so-called department, bureau, etc.) is more common; for groups with ambitions to apply the so-called cyber-terrorism or terrorism with the use of weapons of mass destruction, the features of the scientific and technological intelligence service, etc., are noticeable. In smaller groups, almost all members (in some way) perform an intelligence-security function; "specialization" for these activities is noticeable in larger groups and organizations (Mijalković 2010, 103-105).

CONCEPT OF INTELLIGENCE SERVICE

The intelligence service is a specialized organization of the state apparatus that uses specific methods and means to carry out intelligence-informative, security and subversive activities, with the aim of protecting national security and realizing national strategic goals, as well as protecting its own interests. Therefore, in addition to intelligence activities (gathering intelligence data on the secrets of the adversary with the aim of realizing

vital national interests), security activities (counterintelligence activities to protect the secret data of one's own country, protect vital state bodies and institutions and prevent the actions of the adversary's intelligence services on the domestic territory; protection of the constitutional order; security of certain persons and facilities and counter-terrorist operations), intelligence services also apply the so-called subversive actions that are often connected to the use of force in international relations (Mijalković 2015, 206). The primary task of intelligence institutions is intelligence activity, which represents "the overall planned and controlled action of state authorities on the collection, processing and distribution of information about the power and plans of foreign states, organizations and persons, which may threaten the security of subjects and the values they protect" (Ronin 2009, 13). Intelligence activity is carried out for the purpose of collecting intelligence information that ensures the creation of internal and international policy, as well as for the purpose of collecting information that ensures the implementation of defined political guidelines. More specifically, intelligence information can help political decision makers to: 1. define national interests, 2. develop a coherent national security policy and military strategies, 3. define doctrines and strategies of the armed forces and other security institutions, 4. prepare for national crises and adequately respond to them, 5. prepare in a timely manner responses to all threats to the state and its population (Geneva Centre for the Democratic Control of Armed Forces [DCAF] 2017, 2). As for the security role of the intelligence services, it includes the protection of its own capacities abroad, located in residencies. Capacities are first of all: professional members who manage and implement intelligence activity, agency network through which information is obtained, means of communication, technique and conspiratorial facilities used in operational work, etc.

Intelligence services are institutions of the state institution, and in order to make their operation as efficient and effective as possible, given the specific nature of the tasks they deal with, it is necessary to have a greater part of functional independence compared to other state bodies. This degree of independence depends on whether the specific agency is defined as central (autonomous – directly subordinated to the executive power) or departmental, civil or military, offensive or defensive, national or specialized (financial-economic, energy, technical-technological, political, military- security).

The previously mentioned variety of intelligence services results in frequent mixing of intelligence and security institutions, where the sign of equality is not infrequently put in between, and where again there are clear convergences and divergences. Both intelligence and security institutions have tasks to collect information and to fight against certain forms of threats, usually on a preventive basis. What, among other things, makes the difference between these institutions are: the scope of work, the rules by which they act, the area of action and the specificity of the methods of action. In most cases, intelligence services are offensive institutions that collect classified information and conduct subversive activities in a conspiratorial manner abroad. In contrast, security services as a broader term inclusively include counterintelligence services, which oppose such activities.

The intelligence service is defined as a specialized, relatively independent institution of the state apparatus, authorized to, by legal public and secret means and methods, collect important intelligence data and information about other countries or its institutions and possible internal opponents of one's own country, necessary for conducting the country's policy and undertaking other procedures in peace and war, to implement part of the state and political goals of the country with its own activity, independently or in cooperation with other state bodies (Stajić 2021, 231). Although it is relatively independent in its work, it is necessary for the intelligence service to cooperate with other intelligence-security and similar institutions, which is why it is part of the security-intelligence system, which has clearly defined control and coordination elements. Precisely the control and coordination elements, in addition to the technical-technological, personnel, operational and material financial capacities of the intelligence service, play a very important role in achieving results. However, without previously clear and precise strategic and tactical orientations of the services, which are defined by the highest state authorities, an irrational use of the aforementioned resources would occur.

METHODS OF OPERATION OF INTELLIGENCE SERVICES

The intelligence service, regardless of its place and role in the intelligence-security system of the country, performs complex and specific jobs and tasks. That is why a different approach to classifying its forms

of action is visible in the professional literature. Some authors believe that there are three forms of action: intelligence, counterintelligence and subversive. Unlike them, others claim that intelligence services have a specific methodology that includes two groups of activities: intelligence and subversive (Trbojević 2017, 321). Therefore, intelligence services have two types of activities: intelligence-informative and non-intelligence, i.e. subversive.

The first type implies the collection of precise, timely, verified and complete intelligence information about political and security situations, their bearers, relevant for the protection of vital values and the realization of the national interests of the home state, and informing political decision makers, and the second, the implementation of non-intelligence activities (psychological- propaganda, secretly helping political subjects in another country, organizing and carrying out individual acts of violence, etc.) with the same goal.

Intelligence data can be collected in different ways and using different methods, among which the most effective are:

1. Data collection using human sources (HumanIntelligence – HUMINT);
2. Technical methods (Technical Intelligence – TECHINT);
   a) SIGINT (Signals Intelligence)
   b) MASINT (Measurements and Signature Intelligence)
   c) IMINT (Imagery Intelligence)
   g) GEOINT (Geospatial Intelligence)
   d) ITINT (Information Technology Intelligence).
3. Collection of intelligence data from open/public sources (Open Sources Intelligence – OSINT);
4. The investigative method;
5. Method of secret monitoring and observation;
6. Method of international cooperation.

When choosing a method of action, services are guided to the greatest extent by the principles of the most useful, safest and most economical method. The choice of methods in a specific case also depends on technical-technological, financial-material and personnel possibilities. All these methods cannot exist independently of each other, nor does the intelligence service rely exclusively on one method, which is why it is necessary to combine and complement each other.

1. HUMINT is the oldest method of intelligence gathering and essentially refers to the type of intelligence that is obtained from human

resources. The HUMINT method has a subjective character because through direct contact between people, in addition to data collection, the source can be directed, studied and motivated (Nomi 2021). The use of other methods often depends on human sources, while on the other hand, this method requires a lot more time than others, and there is also the possibility of disavowing the source as well as its compromise and recruitment from opposing intelligence services.

2. TECHINT is a technical method that includes the collection of intelligence data with electromagnetic, electromechanical, electro-optical, or bio-electronic sensors, from the earth, sea and atmosphere (Bajagić 2015, 176). This method consists of several collection disciplines, the most important of which are:

a) SIGINT is a method of gathering information obtained by analysing signals and communications between targets of an intelligence attack. SIGINT has two main fields: COMINT – collection of information through interception of communications between individuals or groups and ELINT – collection of information through access to electronic signals. The main difference between COMINT and ELINT is that COMINT signals contain speech or text (telephone or email communication), while this is not the case with ELINT (JEMEnginering 2021).

b) MASINT is a method of performing quantitative and qualitative analysis of data on an object or phenomenon, obtained from various technical and technological sources and their emission, which include: radar sources, audio sources, nuclear sources, radio-frequency sources, electromagnetic sources, laser sources, radiation sources, chemical and biological sources, infrared sources (FAS: Intelligence Resource Program 2000). This method enables the detection of the presence, and the identification and determination of the characteristics of the object (Defence Intelligence Agency [DIA] 2022), and the best known among the examples of the MASINT method are the acoustic data or signatures of military vessels and the weapons they carry, which can be detected underwater using sonar (Encyclopedia of Espionage 2023).

v) IMINT is a method based on image collection through satellite imagery, aerial photography, infrared, lasers, multispectral sensors and radar. Images from the mentioned sources are usually subsequently submitted to the competent authorities, who then analyse them, while some image collection systems can directly transfer images to the operation centre, which allows the images to be used in real time, that is, as soon as possible (GlobasSecurity 2023).

g) GEOINT is a method of producing information from the analysis of images and data, which are related to a specific geographic location, with the aim of examining and evaluating human activity and other natural or social processes anywhere on Earth. Images, data derived from images and geospatial information is now considered an element of GEOINT (Murrett 2006, 10). GEOINT is a broad field that encompasses the intersection of geospatial data with social, political, environmental and numerous other factors. The intelligence community defines GEOINT as the use and analysis of geospatial information to assess geographically relevant activities on Earth (USC Dornsife 2006).

d) ITINT, i.e. the collection of intelligence data using modern information technology, is considered the latest discipline of the technical method, which implies the application of the most modern technological achievements in the field of informatics in order to collect important intelligence knowledge. This discipline has two basic aspects. The first type involves the collection of data from publicly available (Net-Based – social networks, websites, etc.) information systems (Net Open Sources Intelligence – NOSINT) and secret unauthorized intrusions into protected information systems/computer networks (Hackers Intelligence – HACKING) (Bajagić 2015, 234).

3. OSINT is a method of collecting data from open, that is, publicly available sources. This is about data that is available to the public directly or on the basis of a person's request, where a complex and detailed classification of essential from non-essential data is necessary, followed by their processing, analysis and evaluation. The most famous OSINT sources are: legal acts and strategic documents; books and publications; newspapers, magazines and publications; data of competent state bodies for statistics; telephone directories, etc. The advantage of this method of intelligence action is significant intelligence potential, while one of the problems of this method of intelligence action is a large amount of unnecessary data, which, despite the application of various technological tools, still makes it difficult to focus and reach relevant facts.

4. The investigative method is taken as a subtype of the HUMINT method. This method can be used to collect information from persons of intelligence interest such as: defectors, foreign agents, emigrants, travellers and prisoners of war. Information is collected according to strictly established principles by means of various and complex interrogation techniques, that is, through the statements of respondents or through verbal communication with the subject, where the primary

task is to determine the "sincerity" of the person to cooperate, in order to avoid possible disavowals and misinformation. The process of obtaining information in the investigative method does not only mean examining the person, but also requires a combination with other methods such as a survey, interview, document content analysis, polygraph, etc. (Bajagić 2015, 289-293).

5. The monitoring and observation method consists in observing a stationary object or in monitoring individuals. Observation of a stationary object (room, building and open area) is applied in order to: 1. spot visitors, 2. catch the wanted person 3. Process the object for concrete action (Ronin 2009, 48). Special emphasis should be placed on the inspection and observation of the interior of the facility, which is very important for providing the necessary evidence of threatening activity for the purpose of timely preventive or repressive action. On the other hand, the monitoring of the object is carried out for the purpose of: 1. Detailed familiarization with the object for the purpose of possible recruitment, capture, blackmail, discrediting or liquidation, 2. Reaching a wanted person who probably contacts or can contact the object, 3. Discovering the place of gathering groups, 4. Discovering like-minded objects (Ronin 2009, 49). The monitoring of persons is also carried out for the purpose of detection of conspiratorial places where the facility and associates hold meetings or instant meetings, as well as for the purpose of discovering the facility's movement routes during the execution of specific actions.

6. International cooperation between intelligence and security institutions has a very large intelligence potential, and the data obtained through this method often made it possible to stop or intercept certain forms of threats to national security in specific situations. The disadvantage of this method is that the services cannot know what information foreign services kept for themselves during the exchange.

The role of the intelligence services is not limited only to the collection of information, preservation of national security and constitutional order, but often by means of the services, as a very powerful state apparatus, non-intelligence operations are carried out in order to realize the most important political, security, economic and energy interests. Bearing in mind that non-intelligence operations represent the process of realization of decisions based on intelligence product-information, the methodology of carrying out the non-intelligence cycle can be presented in six phases: 1) political-mandatory phase; 2) expert-mandatory phase; 3) planning phase; 4) organizational phase; 5) executive phase; and 6) analytical-report phase (Mijalkovski 2009, 130).

One of the forms of non-intelligence activity is the subversive activity of the intelligence services, which is defined as a systematic, planned, secret and organized activity aimed at changing the situation in other countries in order to strengthen one's own position, which is done in two ways: 1. by providing diverse support to threatened regimes whose policy suits them or 2. by secretly organizing a coup in order to bring like-minded people to power (Stajić 2021, 239). As mentioned, in order to achieve their political and economic interests and intentions, states use intelligence services to implement political coups in other countries. Revolutionary activity requires a previously studied political-security situation, in order to comprehend in which directions revolutionary activities should be directed, and which are the key political, economic and military-security entities that can prevent or hinder their realization. In the actual implementation of the coup, foreign services rely on agency networks in the target state. Also, the key directions of action are the financing and regulation of the policy of the so-called independent media, through which disinformation, propaganda materials and psychological-indoctrination activities are planned.

As part of subversive activities, foreign services form, train and finance paramilitary groups, subversion-terrorist groups, and often plan, organize, assist or personally carry out assassinations of important state officials, who have the authority to make strategic decisions.

In the context of the above, we assess that non-intelligence operations can generally be divided into four groups: a) information-propaganda operations; b) political operations; c) economic operations and g) paramilitary operations. Each of these operations can be performed autonomously or as part of a wider strategy (Trbojević 2017, 327).

Intelligence methods in the fight against terrorism

Terrorist organizations usually plan their activities in headquarters, which in most cases are outside the borders of the country to which the intelligence service belongs. That is why it is considered that the intelligence services are often on the "first line of defence", while the intelligence methods, which are applied at that moment, are of a preventive nature. Intelligence methods collect all data on: 1. historical, strategic and tactical goals of terrorist organizations, 2. intentions and plans, 3. organizational structure (horizontal and vertical), 4. Management and chain of command, 5. Personnel capacities and level of training, 6. Training

camps and persons trained in them, 7. Funding sources and financial potential, 8. Countries, organizations or groups that help or encourage the activities of a terrorist organization, 9. Logistics and associates of a terrorist organization, 10. Channels of money, information, people and goods used by terrorist organizations, 11. Technical and technological equipment, 12. Armed potential of terrorist organizations, 13. Criminal involvement of members of terrorist organizations.

Intelligence data collected by intelligence methods can be a good starting point in case of criminal prosecution of the perpetrators of the crime. The intelligence service can, on the basis of the collected intelligence information in a specific case, in accordance with the orders of political decision-makers, carry out certain non-intelligence operations against terrorist groups or send intelligence data about persons or activities to partner services, which further undertake certain (most often repressive) activities.

HUMINT is one of the key methods in the fight against terrorism. Intelligence institutions plan, systematically and conspiratorially create agency positions both among members of the terrorist organization itself, and among persons closely related to its members. Intelligence services recruit those members or collaborators of a terrorist organization with information capabilities, that is, those who can access confidential data or those who can perform certain activities depending on the needs of the service (indicating, recruiting, installing listening devices, etc.). The higher the hierarchical level of a member of a terrorist organization, the intelligence service has a potentially greater chance of success, and if the recruited person is one of the management personnel, the service has the possibility to influence the functioning of the organization itself. The grounds for recruitment can be different, namely: 1. creating friendly relations, 2. compromise, blackmail or intimidation, 3. fraud or misleading, 4. providing financial compensation for activities, etc. A complicating factor in the application of this method is the closedness of terrorist organizations, a high degree of indoctrination and a low degree of interaction with other members of the community. Therefore, the recruitment process itself, as well as the process of reflecting the collaborative relationship itself, must be thoroughly organized and maximally conspiratorial, especially if one takes into account the weight of the potential consequences of deconspiracy. Particularly aggravating circumstances exist in the case of the creation of collaborative relationships in terrorist cells, due to their closedness and isolation, and the finding and recruitment of so-called “lone wolves”.

The HUMINT method is supported by the investigative method, whose potential in the fight against terrorism is enormous, where different methods of investigation are applied, and violence towards the source is often included in the process of obtaining information. Members of terrorist organizations often, as defectors, initiate cooperation with members of the intelligence structures, when by offering the knowledge and information they possess, they usually seek safety and refuge for themselves and their families. Also, members of a terrorist group can, as emigrants or as tourists, attract the attention of intelligence structures, which will use investigative techniques to try to get information that intelligence-interested persons have.

GEOINT and IMINT are methods with great intelligence potential in the fight against terrorism. In order to implement these methods, a significant technical and technological potential of the services and the use of various high-tech devices, drones, airplanes, access to satellite images, etc. is required. Intelligence data obtained by GEOINT and IMINT methods can reveal the location of terrorist bases, training camps or facilities where members of terrorist organizations gather. The independent application of these methods cannot be sufficient for the fight against terrorism, however, the spatial and other data obtained from their application in combination with other indicators for the result can provide the detection of terrorist activity in the early stages (see Brent L. Smith, Jackson Cothren, Paxton Roberts and, Kelly R. Damphousse 2008). In a study published by DNI – OpenSourceCenter, it is stated that by monitoring parameters such as location, timing or frequency of some behaviour, it is possible to predict or observe potential patterns of terrorist activity through the analysis of geospatial intelligence information (Aftergood 2009). Also, the mentioned intelligence data can have an important, and sometimes a key, role in the execution of anti-terrorist military or non-intelligence operations.

The advantages of applying the MASINT method in the fight against terrorism are that qualitative and quantitative results are obtained through physical or chemical analyses of data that can hardly be changed or dissimulated. Thus, for example, by applying this method, in the case of spectroscopic measurement of a leaked chemical bioagent at a specific location, evidence of a potential warehouse of weapons of mass destruction could be collected (The Directorate for Mathematical and Physical Sciences [NSF], and The Intelligence Community 2002, 14) which is a very important field of activity of the intelligence services.

Using radar systems, sonar or radio-frequency systems can determine the identification or presence of terrorist objects at a specific location.

OSINT, as a method related to open sources, can make a huge contribution to identifying terrorist networks and understanding how terrorists use their capacities. Today, there are numerous intelligence tools that enable the rapid identification and flagging of any content deemed to be related to terrorism, allowing for faster analysis and removal from the Internet (Policy Centre for the New South 2022). Also, when a faster analysis of printed texts is enabled, with the analysis of it, it can be quickly determined whether they are propaganda or indoctrination materials, which enables a faster response. The increase in the number of publicly available resources created the basis for the creation of better quality analyses of terrorist organizations and their activities. Collection, classification, processing, analysis and evaluation of newspaper articles, press, books, publications, statistics, available police reports, websites, as well as other national and international public sources can provide information about potential terrorist operations, command structure, propaganda materials, channels of communication and indoctrination, techniques and methodology of action, etc. (U.S. Department of Justice 1999). Publicly available sources often contain a lot of information about charismatic leaders of terrorist organizations, on the basis of which further intelligence or non-intelligence activities can be planned and organized. Through OSINT, information can potentially be obtained about groups, organizations or countries whose support the terrorist organization and its leader enjoy.

SIGINT is one of the most important methods if it is taken into account that more and more communication and correspondence between members of terrorist organizations takes place through modern information technologies. Information that can be disclosed in this way are potentially related to: identity of participants in the conversation, locations from which the conversation takes place, intentions and future plans, potential targets of attacks, financial flows, criminal involvement of terrorists, identification of the target, detection of collaborators or facilitators. Although this is considered to be the second most useful intelligence method (right behind HUMINT), there are two limitations to it: 1. a situation in which terrorists expect that their communication will be intercepted, where in such circumstances those who are trained in intelligence and security will try to disavow the service, 2. the second situation refers to the moment when members of a terrorist organization

are prohibited from communicating with each other they use electronic connections (Intelligence functions: Signals Intelligence (SIGINT)) where the intelligence potential, except for some mistakes made by terrorists, is almost non-existent. If communication between members of terrorist groups takes place via electronic communication systems, there are almost always greater or lesser suspicions that they are the target of eavesdropping or interception of communications, which is why they use slang. Continuous eavesdropping and interception of communications and analysis of their content makes it possible to break through slang, after which the language of terrorists becomes clear to the intelligence service. The content that is intercepted by the SIGINT method is often encrypted, which is why intelligence analysis in order to obtain the final intelligence must include various decryption techniques. Important information is also collected through audio and video-audio surveillance devices that are secretly placed inside facilities where terrorists reside, plan or carry out terrorist and non-terrorist activities. These devices are installed by an intelligence or recruited member of a terrorist organization or a person close to its members.

Cyber experts within the intelligence services access the content of communication and the content of computer and mobile devices or other devices used by terrorists in a conspiratorial way, through the HAKING method. The nature of that content may refer to future plans or activities, propaganda material, methods and techniques of action, sources of funding or committed crimes (see the case of Ahmiri Ahmed Azizi and Mohamed Asini: Counter Terrorism Policing 2022). The HACKING method has its application both in the fight against conventional and in the fight against cyber terrorism. One of the most famous hacking software used by intelligence services in the fight against terrorism is the Israeli "Pegasus" (Bergman, Ronen, and Mark Mazzetti 2022).

The method of monitoring and observation is a necessary method in the fight against terrorism. By monitoring a member of a terrorist organization or a person associated with it, information can be obtained about: the terrorist's route, the location of the collection of courier and other packages, places used to conceal persons or weapons, other members of the terrorist group, potential financiers or helpers, targets and the place of execution of the terrorist attacks. In the event of an intention to commit a terrorist act that the service did not expect and it was not detected by applying some other method, this activity can be observed by the monitoring method, and thus the attack can be thwarted.

International cooperation has always been an important segment of the intelligence component of the terrorist campaign, which was particularly intensified after September 11, 2001, and most of the successful operations against al-Qaeda even before this event were the result of joint initiatives and activities. The then director of the CIA told congressional investigators in 2002 that the agency cooperated with numerous European governments, such as Italian, German, French, and British, in order to thwart and destroy terrorist groups (Krstić 2016, 106). Cooperation most often takes place between the intelligence services of friendly countries, however, there are also known examples in which the detection and processing of a terrorist attack occurred solely thanks to data obtained from enemy intelligence and security agencies.[2]

Non-intelligence methods in the fight against terrorism

Based on the previous analysis of non-intelligence methods, it can be concluded that they are implemented in the largest number of cases against other countries and their institutions. However, in order to prevent a terrorist act, intelligence methods are often not enough, which is why it is necessary to eliminate the terrorist threat by applying non-intelligence methods. These methods against terrorism are implemented by the intelligence services through their own intelligence staff, or members of the intelligence network, where sometimes members of terrorist groups themselves are found.

In order to prevent terrorist activity, intelligence services also carry out revolutionary actions in those countries whose regimes support terrorist activity. The very success in these revolutionary activities and regime change would mean the loss of perhaps the most important support for a specific terrorist organization, which would then become an easier target for the intelligence services (Afghanistan). Likewise, intelligence services can carry out special operations against terrorist organizations in those countries whose regimes they seek to protect from the terrorist threat (Syria).

One of the forms of non-intelligence activity of the intelligence services was especially applied in the war against terrorism, which was conducted by the USA in Afghanistan after September 11, 2001. It is

[2] At the end of 2019, the Federal Security Service (FSB) of the Russian Federation detained two persons suspected of preparing a terrorist attack in Saint Petersburg. The FSB previously stated that the arrest was carried out based on information obtained from US authorities.

about the method of targeted killing, which is limited to the specific selection of an individual or individuals, who are wanted for the purpose of liquidation for participating in a terrorist action or belonging to a terrorist group. Before that, the most famous case of targeted liquidation was the pursuit of Black September terrorists by Israeli intelligence after the Olympic Games in Munich in 1972, which took place throughout Europe and the Middle East. The fact is that there is enough evidence that in some of these cases states have decided to act repressively in order to eliminate the perceived terrorist threat. Also, targeted elimination becomes exponentially more important when assessing whether a particular terrorist or terrorist group, at any level, is seeking weapons of mass destruction for execution of a terrorist attack. Individuals likely to rise to the top of the list of candidates for targeted liquidation in this regard include: 1. scientists who provide technical expertise to terrorists in the production or construction of weapons of mass destruction; 2. terrorists known to be actively seeking weapons of mass destruction; 3. terrorists who are known to possess weapons of mass destruction; 4. groups or individuals responsible for the procurement of weapons of mass destruction (Byron Hunter 2009, 15-25). Targeted targets of elimination in the operation of intelligence services can also be objects, that is, movable and immovable things that are extremely important for the operation of terrorist groups, which is why they are attacked using diversionary or related methods. The successful and timely targeted elimination of facilities where weapons of mass destruction are located, i.e. where such weapons are produced or stored, is particularly important.

Non-intelligence action in the form of abduction of persons responsible for a terrorist act is also in the field of action of intelligence institutions, in those situations where deportation or extradition is not possible and when quick action of intelligence authorities is necessary. The kidnapping of members of terrorist groups requires a wide intelligence network and strong logistics because in most cases it is necessary to transfer the abducted person to the territory of another country. Circumstances become even more difficult in the event that the country on whose territory such activity is carried out is positively inclined towards the terrorist group. Kidnappings of members of a terrorist group are carried out in order to hand over the person to the state for questioning, to obtain evidence or to be tried for committed criminal acts.[3]

[3] There are numerous cases of kidnappings by intelligence services, one of the most famous cases being the kidnapping of Abu Omar in Italy (see: Nino 2007).

The subversive action of the intelligence services towards the terrorist organization is carried out in order to eliminate it, weaken it, establish mistrust among its members, achieve paranoia and a sense of insecurity (Despotović i Glišin 2021). The goal of subversive action against a terrorist group is to create and maintain an environment of general insecurity and the disintegration of its most important organizational units. The techniques used by the intelligence service in this case are aimed at members of a terrorist organization, which include: dissemination of compromising material about members of terrorist groups; spreading disinformation about the cooperation of individual members of the terrorist group with intelligence and security institutions; creating an impression among the members of the terrorist group that the person is acting against its interests; dissemination of disinformation about the obstruction of terrorist actions and goals; the use of public information for the distribution of pejorative and compromising content about terrorist leaders. Subversive processes necessarily contain the intention and permanent effort to weaken the terrorist organization more and more, which is achieved, among other things, by intercepting financial supply chains, preventing the supply of necessary equipment and weapons, disabling information channels, etc.

Cyberattack on information and telecommunication systems are one of the effective forms of non-intelligence combat, especially if we take into account the increasing application of information technology in the operation and maintenance of the basic functions of terrorist groups (recruitment, dissemination of propaganda material, sharing of goals and targets, Internet intimidation). By blocking and disrupting communication channels, timely information between members of a terrorist group is prevented or made impossible for a certain period of time, thereby significantly hindering or interrupting terrorist actions (Jevtović 2016). Today's terrorists have realized that the security of the state, as well as the security of the global community, largely depends on computers and information technologies, and that a strategic attack on these systems would have devastating consequences for every country and its economy. Therefore, cyber protection is one of the most important fields of work of the intelligence services, where specific tasks are for the intelligence service to detect and stop the cyber threat in a timely manner (Diaz, Gustavo, and Alfonso Merlos 2008).

CONCLUSION

It is a fact that the absence of a universal concept of terrorism makes the fight on the global level much more difficult, but also opens up space for certain abuses in connection with terrorism and with regard to the specific political and security interests of states. Regardless, states independently or in cooperation with partner countries, define real or potential forms and bearers of threats according to which they direct the action of intelligence institutions. Intelligence institutions in such an environment have no room for a dilemma, because an unequivocal order from the political decision maker clearly defines which organizations or groups have the character of a terrorist threat to the state. The effectiveness of the intelligence services' fight against terrorism depends on: 1. material and financial resources, 2. personnel resources, 3. technical-technological capacities, 4. management staff within the service, 5. control and coordination bodies within the national security system, 6. laws and strategic-doctrinal documents, 7. strategic and tactical orientations, 8. political and security situation in the country, 9. political will of the holder of state power, 10. Methodological concept of struggle.

The methodology of the intelligence agencies' fight against terrorism is an extremely dynamic category, as is the threatening phenomenon itself that needs to be neutralized. The intelligence services have specific organizational units in their composition that deal with the study of both professional practice and scientific theoretical concepts of terrorist activity, in order to constantly improve the methods of combating terrorism. Also, training and specialization of personnel whose task is to oppose terrorism is necessary. The application of one of the defined methods in the fight against terrorism cannot meet the needs of protecting national security, which is why it is necessary to combine and apply several methods in a given situation, in order to produce the best possible results in fighting against terrorism. Also, the intelligence services cannot independently oppose terrorism, but for that, cooperation with other security-intelligence or related institutions is necessary, in accordance with the principle of division of competences between institutions defined by the government. Therefore, it is extremely important to exchange information with partner services and through international cooperation, because so far in several cases it has been shown that it is impossible to oppose terrorism at the national level.

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МЕТОДЕ ОБАВЕШТАЈНИХ СЛУЖБИ У БОРБИ ПРОТИВ ТЕРОРИЗМА

Сажетак

Адекватна анализа борбе обавештајних служби против терористичких организација захтева приступ који се темељи на методама и средствима деловања обавештајних институција. Тероризам је међу најзаступљенијим безбедносним претњама у медијима и у јавном дускурсу. Све већа бруталност терористичких група и организација, често помињање у јавности и виралност терористичких аката на друштвеним мрежама довели су до тога да се створи специфичан страх према тероризму, због чега је рано откривање и заустављање терористичког деловања од изузетне важности. На пољу превентивног деловања против тероризма најважнију улогу имају обавештајне институције. Обавештајне институције пре свега користе специфичне методе и технике прикупљања података о терористичким претњама чиме се омогућава њихово откривање и пресретање. Поред тога, обавештајне институције се користе и необавештајним методама борбе које захтевају посебну анализу. Са друге стране, терористичке организације, поред извођења терористичких аката спроводе и делатности усмерене на ометање и дезавуисање обавештајних институција, што додатно отежава борбу против тероризма.

Кључне речи: обавештајна агенција, обавештајне методе, необавештајне методе, тероризам, терористичке организација, терористички акт.

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INTERNATIONAL LEGAL STANDARDS OF CRIMINAL-LEGAL PROTECTION AGAINST VIOLENCE AT SPORTS EVENTS

Resume

The aim of the paper is to present the effectiveness of the mechanisms used so far to prevent violence and unsuitable behaviour at sports events, contained in the international legal framework and national legislation, and which arose from the practice of opposing this form of violence in certain countries of Western Europe. International cooperation in the field of criminal-legal protection against violence at sports events developed after a series of tragic events in the second half of the 20th century, with the intention of establishing a system of preventive action through the power of laws and international conventions in order to eliminate unpleasant scenes from the content of sports activities. As certain societies, especially those in the process of transition, ignore the importance of the health and recreational function of sports, at the same time they do not do enough in terms of this prevention and change of those social relations that are at the foundation of the deviant behaviour of sports actors, primarily fans. Based on the qualitative analysis of the literature, as a basic methodological approach and the analysis of the legal and institutional framework in this area, it is declared that

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many useful and effective steps have been taken in this field in the last few decades. However, as violence at sports events still exists as an unavoidable feature of almost every activity of this kind, on the fields and in the halls throughout Europe, we could note that there is some room for further progress in terms of the defined goal. Using cheering as a defense mechanism of identification, where the very competitive relationship within the game creates rivalry, these members of mostly marginalized social groups in this way articulate their dissatisfaction in a socially unacceptable way.

Keywords: sport, fans, law, hooligans, sports violence, international legal framework, extremism.

INTRODUCTION

Surveyed throughout history, violence at sporting events (better known mainly as hooliganism), in the second half of the 20th century and the beginning of the 20th century became an authentic characteristic of almost every sporting event. Often, forms of violent and inappropriate behaviour had the power to culminate in mass-scale conflicts, which in a certain number of cases ended with several hundred victims. Such development of the situation clearly indicated that there were certain failures both in the organizational sense of the events themselves, and in the sense of the lack of an adequate normative framework that would contribute to the suppression of this type of violence, both at the national and international level.

Europe, bearing in mind the complexity of this phenomenon on its soil, was the first and most determined to oppose extreme fan groups and the forms of threat to vital values that they produced. The reason for this is certainly that social threats of this type affect the national security of states. The popularization of this phenomenon and the interest of both the professional and the lay public is evidenced by a large number of studies published in leading scientific journals, which focus on the victimological and phenomenological aspects of this issue (Tsoukala, Pearson, Coenen 2016; Gumusgul & Acet 2016; Nielsen 2013). The aforementioned, as well as other research on this topic, point to the basic shortcomings in terms of prevention and suppression of these patterns of behaviour, which, for the most part, come down to an inadequate

normative framework, at the national and international level, that is, organizational and other failures, the causes of which we will see in to the second part of the text. However, with this statement about the interest in researching the impact of extreme types of behavior at sports events on all forms of security (Bošković, Mišev 2022; Arsić, Kovač 2022), we encounter the first dilemma. This dilemma is reflected in a rhetorical question – how is it possible that even after so many practical examples of opposing this type of violence, there are still countries in Europe and the rest of the world that are unable to face this problem. The answer is, seemingly, simple, given that the work will provide us with an insight into how the politicization of extreme fan groups brings stability to the ruling political structures, but, at the same time, it is also unacceptable, especially if we have in mind certain modalities applied in an effort to suppress, or at least limit, criminal forms of behaviour at sports events. Here, above all, we mean the so-called the "English model" which, without any doubt, gave effective results, but also served as an inspiration for the establishment of numerous regulations that would regulate this area. Taking all that into account, this paper is dedicated to observing the correlation between the codified regulations on the suppression of violent and inappropriate behaviour at sports events and the contribution that the adopted international legal and national mechanisms have to the overall social response to extreme patterns of behaviour of members of fan groups during sports events.

VIOLENCE AT SPORTS EVENTS AND THE INTERNATIONAL LEGAL FRAMEWORK FOR ITS PREVENTION

Perceiving the fundamental and unequivocal health and recreational functions of sport, such as the contribution to preserving and improving the health of the population, primarily the cardiovascular and cerebral vascular systems, it is clear that it is an unsurpassed need of every community. However, in addition to such an obvious function, sport unfortunately manifests the other side, which is, to the greatest extent, a product of political or some other manipulation. Therefore, it is not a rare occurrence that a certain sports event turns into proving the so-called banal nationalism, using an enormous amount of violence, on which the identity of most fan groups as indispensable actors of these events is mainly built. In order to understand the aforementioned issue, "an analysis of

the causes and conditions that favour the emergence and survival of fan group violence, its forms, spatial and temporal representation, as well as the consequences caused by it, is necessary" (Otašević 2014, 5). At the same time, it is important to note that the violent forms of behaviour that are noticeable today at almost every event of this type are not a striking characteristic of the modern era, nor is proving national affiliation the only reason for such behaviour, although there is no doubt that it is the most pronounced in modern conditions. In fact, sports competitions were organized in almost all stages of human history, while various forms of violent behaviour were present throughout the entire period of the development of sports. Hence, it is not surprising that violence at sports events could be observed as early as the time of ancient Greece and the Roman Empire, when fan clashes were an inevitable factor in every event (Joseph 2016).[1]

Nevertheless, although incidents in stands and playgrounds have accompanied sporting events since their beginning, violence at events of this nature, in the form in which we know it today, developed during the 20th century. In this sense, the first recorded incident of this kind dates back to 1916, when, in the Argentine city of Buenos Aires, during a football match between Argentina and Uruguay, fans and the police clashed (Otašević 2014, 18). From that event, in fact, the expansion of the destructive behaviour of intermediate actors of sports events begins, which is maintained throughout the 20th century, and reaches its culmination in 1985 at the *Heysel* stadium in Brussels. At the football match between Liverpool and Juventus, the fans of the English team moved to the stand of the opposing supporters and pressed them against the wall, which fell under the load and dragged 39 fans of the Italian club to their deaths, while more than six hundred people was injured (Steen 2015, 261-262). The tragedy at the Heysel stadium, an unimaginable phenomenon in sports Europe until then, quite expectedly, given the unacceptable consequences of a sporting event, represented a turning point both in the approach to the problem of extreme fan groups and their behaviour, as well as in the adoption of a number of internationally valid regulations which aimed to prevent such situations in the future.

To acknowledge such forms of behaviour, however, a more specific analysis of the causes that lead to it is needed. In this sense, in the literature that deals with this issue, there is a consensus of authors that the sporting

[1] The most massive such incident occurred in the year 512 in ancient Rome, when over 30 thousand people died in a mass brawl of fans who followed horse races (Joseph 2016, 3).

event itself is the primary factor that determines the behaviour of the audience at the matches, while the role of the secondary cause mostly appears to be the social climate, which may or may not be connected to the sporting event itself (Spaaij 2005, 2). And while there is agreement regarding the causes of deviant behaviour primarily at the venues of sports events, the situation with the classification of such forms of behaviour is completely opposite. It is not simple, some authors claim, to offer a generally accepted classification of the behaviour of extreme fans, and the already complex situation is further complicated by the fact that progress in all spheres of society enables them to constantly manifest new and more destructive forms of action (Yuldashevna & Gulpta, 2022). Consequently, various typologies are possible in this sense, of course, depending on the very criteria that are at its base. Thus, according to the criterion of the way deviant behaviour is manifested, it can be classified into: verbal, which is reduced to insulting rival groups or individuals, and which aims at provocation, which is why in most cases it is only an introduction to more extreme activities; physical, which represents the most destructive action of organized fan groups, and the consequences are serious physical injuries or even murders (Otašević 2014, 64-65). Misić, on the other hand, cites the number of participants as the basic criterion of division and distinguishes group and individual violence according to it (Misić 2010, 118). The same author also emphasizes that according to the criterion of the time of manifestation, violence at sports events can be classified as that which is manifested before, during, or after a game (Misić 2010, 119). According to Marija Djoric, conflict between athletes, aggression against officials, hostility between football coaches and players, and hooliganism by spectators can all occur during sporting events (Djoric 2012, 40-41). The author describes hooliganism as a "violent behaviour by which a part of the audience at sports events builds their personal identity trough belonging of a fan group, which expresses frustration aggression by destroying material things or injuring opponents" (Djoric 2010, 385) No less important is the typology of violence at sports events, which takes as a criterion the degree of organization of violence, according to which spontaneous, organized and planned riots are distinguished (Savković, Đorđević 2010, 15). However, regardless of which of these forms of violence is involved, the common element for all these well-organized and hierarchically structured groups is the indispensable connection with the political structures of states (Kuhn, 2019). This, to the great regret of the sport itself, but also of society as a

whole, is evidenced by numerous examples in which some form of violent behaviour took place and where the perpetrators were not prosecuted. Also, the brutality that these groups manifest in certain actions, as well as the organization in carrying out certain activities, indicate the support they have in the most important state bodies, including public order and peace authorities. On the other hand, as a completely legitimate question, the one related to the attempt to understand the interest of the holders of political power to have such groups under their control and on their side stands out. The answer, at least based on current practice, is both simple and unacceptable, because fan groups themselves are often the subject of political manipulation, so it is therefore not a surprise when some of them send sublimated messages from the government to the electorate. If we take into account the fact that they are composed of members who, as a rule, have charges for several different criminal acts, it is clear that this is a very effective means of political manipulation through these groups.

Nevertheless, violence at sport events is an immensely complex phenomenon and as such requires a multidisciplinary scientific approach in its study. This, in fact, implies that it is necessary to observe it from the point of view of several different sciences, inevitably including legal sciences, especially if we take into account the ubiquitous demand that this phenomenon be regulated within the framework of both international and national legislation. Consequently, in the theory of law, there is a consensus around the position that there are two reasons for the establishment of criminal legal protection of sports: the first reason indicates the need to protect in this way all those values that sport can have, which, in the first place, are reflected in the benefits that such activities bring to the individual and the social community; the second reason is reflected in the fact that various socially dangerous behaviours are an integral part of sports events and thus threaten the values mentioned here (Otašević 2014, 142). For these reasons, and not long after the tragedy at the Heysel Stadium, the Council of Europe took the first step towards the normative shaping of this area by adopting the European Convention on Violence and Misbehaviour of Spectators at Sports Events in 1985, and in particular at Football Matches (*European Convention on Spectator Violence and Misbehaviour at Sports Events and in particular at Football Matches*)[2] (hereinafter: Convention I). This intention reflects the basic goal of this

[2] European Convention on Spectator Violence and Misbehavior at Sports Events and in particular at Football Matches, adopted on August 19, 1985 in Strasbourg, entered

Convention, which is embodied in the effort that all member states of the Council of Europe, including other signatory states, take all necessary measures to successfully implement these provisions in their legislation. Since Convention I obliges the signatory states to pass appropriate laws that would define criminal acts and misdemeanours that can be committed by undertaking any of the acts of violence and misconduct at sports events, this is the main reason why the same Convention represents an international source of criminal law in the area of sport. Convention I, in its introductory part, emphasizes the need to suppress fan violence, primarily due to the fear that further escalation could threaten the basic principle of sport contained in the understanding that sports activities should be brought as close as possible to the largest percentage of the population, among other things that sport is viewed as a universal medium for establishing good international and inter-national relations (Golijan 2021, 174).

By analysing the content of the first Convention of the Council of Europe, three main areas that are regulated can be unequivocally observed: prevention, cooperation and judicial measures. In the part of the text of the Convention that talks about preventive measures, it is actually about measures that should be taken in order to establish standards for the construction and design of sports facilities (infrastructure standards). These are standards whose application should prevent a whole series of possible consequences, and which include measures related to ensuring a sufficient number of entrances/exits, including explicit marking of them in case of danger, an installed and applicable technical protection system (video surveillance), as well as suggestions regarding the use of appropriate building materials. Another area that the Convention refers to is cooperation and it includes a set of measures that establish standards of international communication. Here, in fact, we are talking about established standards, the application of which should enable the necessary contacts between the security structures responsible for the organization of a certain sports event, in order to predict potential dangers, and therefore reduce the possibility of certain risks manifesting. The third, and also the last main area to which prevention refers, involves the application of judicial measures that establish standards of judicial cooperation. This group of measures, formulated within this standard,

into force on 1 November 1985 (ETS No. 120). The Republic of Serbia is a member of this convention ("Official Gazette of SFRY – International Agreements", No. 9/90).

refers to the coordination of the activities of judicial authorities, such as inspection of court records of persons prosecuted for violence.

The contribution of the Convention in reducing tensions and preventing inappropriate behaviour at sports events is also reflected in the part of the text where it is emphasized that the relationships that are established are also responsible for the current state of sports, because, as Giulianotti notes, sport as a game, in this way, gives primacy to the competition, so the emerging rivalry is inevitably transferred to the fans (Đulijanoti 2008, 213). Anastassia Tsoukala joined the few papers that analyse the importance of the first European Convention in order to prevent: however, they cannot be identified as the main and only cause. To these shortcomings of the Convention, which the mentioned authors identified and explained, we would add a few more that we observed during this analysis. Namely, the very name of this document implies that the establishment of international standards and the development of effective mechanisms for preventing the manifestation of illegal forms of behaviour primarily refer to football matches, not to all sporting events. However, looking at the Convention, one gets a different, but incomplete impression, that the provisions presented and analysed here mostly refer to sports events of all kinds, although the main focus is on football matches. Bearing in mind the popularity and mass of this sport, then such a solution does not represent a big deviation, although the specifics of other sports and the areas where they are held cannot be ignored either. This, for example, is probably best reflected in that part of the Convention from which the analysis of the provisions can be used to single out infrastructure standards. Football stadiums, in accordance with their specific architecture, are very different from the infrastructural solutions used in the construction of sports halls, halls or swimming pools intended for water sports. Certain differences, in this sense, also exist in the approaches to such facilities, the places intended for the entrance/exit of the audience, and especially in the very concept of the stands, because, unlike football stadiums, in most cases it is about prefab stands that include different organizational requirements and security protocols. On the other hand, since it is a matter of the Convention which, as we have already stated, was adopted under the influence of the tragedy at the football stadium, then such determinations contained in it are somewhat understandable. Furthermore, a big problem when we talk about this topic, and which the Convention does not deal with, is the kind of violence and inappropriate behaviour of certain actors of sports

events that take place immediately before or after the end of the event itself, in the near or far vicinity of a sports facility. In fact, if we assume that the first Convention in this area is guided by the opinion that deviant behaviour in the further vicinity of the stadium is the responsibility of public order authorities, regardless of the indisputable connection with the sporting event itself, then it cannot be accepted in those places in the vicinity which represent an integral part of the sports facility itself. Therefore, the Convention itself does not explicitly indicate where the spatial limit of the responsibility of the organizer of the sports event is, although from the given provisions it can be concluded that it refers only to the sports facility understood in a narrower sense (the field intended for the game and the stands intended for the presence of the audience). Therefore, while respecting all the contribution that this document made in order to establish international standards for the prevention of violence at sporting events, it is also noticeable that the Convention also contains certain shortcomings, which is primarily a consequence of the accelerated effort to immediately after the "Heysel tragedy" this kind of document sends a message to the hooligans that the same or similar behaviour will not be possible, that is, a message to the general public that there are mechanisms for effective prevention in order to prevent such outcomes.

In the years that followed, there was no reduction in the amount and intensity of violence at sports events, which is to some extent a consequence of the development of methods and means of sophisticated hooligan activity, so as a response of the Council of Europe to such a challenge, the adoption of numerous recommendations followed. A certain problem with these recommendations is their legal obligation, however, as Šuput explains, it "stems from the authority of the body that adopts them and is the result of the agreement of the political representatives of the member states of the Council of Europe" (2011, 89). Among these recommendations, the following stand out:

– Council Recommendation of 30 November 1993 concerning the responsibility of organizers of sporting events[3] – contains guidelines that indicate the need to determine who is the organizer of the match and what is their responsibility, i.e. if the responsibility is divided between two or more bodies to determine who will be responsible

[3] Council Recommendation of 30 November 1993 concerning the responsibility of organizers of sporting events, adopted on 30 November 1993 (OJ C 444/1). It is not subject to ratification because it is not an international treaty.

and for which function.

- Council Recommendation of 1 December 1994 concerning exchange of information on the occasion of major events and meetings (network of contact persons)[4] – suggests the national institutions and bodies of the Council of Europe to establish a network of contacts so that the flow of information important for the organization of the event itself is more expeditious.
- Council Recommendation of 22 April 1996 on guidelines for preventing and restraining disorder connected with football matches, with an annexed standard format for the exchange of police intelligence on football hooligans[5] – suggests that signatory states should use an integrated database of police reports on persons who have committed offenses or who are reasonably suspected of causing riots.
- Recommendation Rec (2001) 6 of the Committee of Ministers to member states on the prevention of racism, xenophobia and racial intolerance in sport[6] – calls on national governments to take the necessary measures to prevent racist and xenophobic messages in football stadiums and sports halls.
- Recommendation 2003/1 of the Standing Committee on the role of social and educational measures in the prevention of violence in sport (Recommendation Rec (2001) 6 of the Committee of Ministers to member states on the prevention of racism, xenophobia and racial intolerance in sport)[7] – indicates the need establishment

[4] Council Recommendation of 1 December 1994 concerning exchange of information on the occasion of major events and meetings (network of contact persons) adopted on December 1, 1994 (OJ C 444/1). It is not subject to ratification because it is not an international treaty.

[5] Council Recommendation of 22 April 1996 on guidelines for preventing and restraining disorder connected with football matches, with an annexed standard format for the exchange of police intelligence on football hooligans, adopted on April 22, 1996 (OJ C 131). It is not subject to ratification because it is not an international treaty.

[6] Recommendation Rec (2001) 6 of the Committee of Ministers to member states on the prevention of racism, xenophobia and racial intolerance in sport, adopted in June 2006, entered into force in 2002 (OJ C 444/1). It is not subject to ratification because it is not an international treaty.

[7] Recommendation Rec (2001) 6 of the Committee of Ministers to member states on the prevention of racism, xenophobia and racial intolerance in sport), adopted in 2001 , entered into force in 2002 (OJ C 444/1. It is not subject to ratification because it is not an international treaty.

of a broader approach to the prevention of this problem, through the development of certain educational projects.

The most significant contribution made by the aforementioned recommendations and other accompanying documents adopted in the period after the first Convention of the Council of Europe is reflected precisely in the establishment and further development of the standards that we previously identified from the analysis of the provisions of the Convention themselves – the standards of mutual communication. In this regard, many efforts have been made to establish effective mechanisms for the application of these standards, not leaving out the institutionalization of such communication, so today's cooperation between the organizers of sports events and their immediate actors is incomparably easier and more efficient. To this, as an additional contribution to the ultimate goal – prevention of inappropriate and violent behaviour at sports events, we should add the obligation of the signatory states, which arises from these accompanying documents, to establish a National Football Information Point (hereinafter: NFIP), as the central body through which all communication related to the organization of international matches will be carried out. The NFIP is, in fact, conceived as the bearer of almost all the activities we mentioned above, which derive from the recommendations of the Council of Europe, including the indispensable communication between security structures as well as the exchange of police and intelligence data. However, regardless of the noticeable progress that has been made towards the set goal, it is noticeable, almost equally, that the aforementioned recommendations focus on football as the most mass sport (cf. aut. NFIP), almost always respecting the specifics of events of this type only. To be fair, other sports, including the venues in which they can be played, are not completely neglected, but they are not nearly as represented as football matches.

Seeking to compensate for the shortcomings contained in the previous Convention I, under the influence of a new wave of expansion of violence and misconduct by fans in stadiums across the continent, in 2016 the Council of Europe adopted a new document called the Council of Europe Convention on an integrated safety, security and service approach at football matches and other sports events[8] (hereinafter: Convention

[8] Council of Europe Convention on an integrated safety, security and service approach at football matches and other sports events), adopted on July 3, 2016 in Strasbourg, entered into force on November 1, 2017 (OJEU L 115/9). The Republic of Serbia signed this convention on May 17, 2021, but did not ratify it.

II). In the explanation of the proposal of the Convention (Explanatory Report)[9], it is stated that in the period of almost three decades after the adoption of the first Convention of the Council of Europe (in 1985), new circumstances arose which are reflected in the significant influence of various social factors (economic, political, technological, migration) to sports events and the development of new forms of hooligan behaviour. Accordingly, the proposal of the Convention in its introductory part particularly emphasizes the importance of establishing a dialogue with key actors, such as local communities, fan associations and the like. Therefore, from the very introductory provisions we can notice certain changes in the approach to the issue itself, i.e. it can be seen that Convention II will have an integrative approach that does not only mean communication between the security structures responsible for the organization of an international sports event (a legacy of the first CE Convention), but also interaction with a wider circle of indirect and direct actors of sports events. Convention II, just like the one that preceded it, foresees a whole series of measures to prevent and punish violence and misconduct. Among others, there are those that emphasize that the signatory states are obliged to improve the licensing system of those persons who are in charge of implementing security protocols at the venues of sports events; it is necessary to improve the sanitary conditions in these places, that is, to develop more effective protocols for unhindered access to special categories (women, children, the elderly and people with disabilities); the organizers of the sports events themselves have the possibility of being sanctioned, due to inadequate actions, if certain incidents occur. At the very beginning of Convention II, we can see a repetition of the flaws of previous similar or the same documents, which are reflected in the overemphasis of the validity of provisions for football matches. Although its text states that most of these provisions refer to football due to its global distribution, it is evident that the changed social circumstances that were noted at the beginning, among other things, influenced the development of deviant forms of behaviour at other types of sporting events (cf. aut. basketball games in Serbia). However, in addition to this tendency, which builds on the previous document, Convention II, unlike all previous solutions, also provides institutional support for the implementation and realization of the foreseen measures.

[9] Explanatory Report to the Council of Europe Convention on an Integrated Safety, Security and Service Approach at Football Matches and Other Sports Events, adopted in 2016 in St. Denis (CETS 218).

For this purpose, the Committee on Safety and Security at Sports Events was established, which is responsible for monitoring the implementation of the provisions of Convention II and providing technical and advisory assistance to the signatory states.

Further analysis of the provisions contained in Convention II indicates that the basis of this document is the position that misconduct at sports events is not the result of innate or created rivalry, nor the consequence of the consumption of illegal psychoactive substances, but rather the synchronized action of the most diverse risk factors. In this sense, the integrative approach that the Council of Europe tried to implement in the fight against illegal behaviour at sports events implies that the most important standards that can be extracted from these provisions are safety, security and services, which are also three pillars of the same goal. Safety standards, as the thematic concept of Convention II, include a set of measures related to the protection of life and health of all actors of an event (stadium infrastructure, stadium certification, rules for the consumption of alcoholic beverages, plans for emergency situations, etc.). Security standards, as the next thematic concept, include those measures that are specially designed to suppress all forms of violence both in the stadium and outside it (cooperation between police services and other security structures in the organization of a sporting event of an international character, risk assessment, sanctions for individuals). From the mentioned group of measures, we can see one of the objections of the CE Convention from 1985, which refers to the defining of responsibility for the type of violence directly related to the football match. It is not manifested in the stadium itself, but in its environment. Although it is emphasized again that such violence, first of all, must be correlated with a football match (the possibility is left that it can apply to other sports as well), the value of this group of measures lies precisely in the fact that it defines the spatial competence of the organizers, which no longer includes the deviant behaviours displayed within the confines of the stadium. Service standards represent the last thematic concept that is equally important for achieving the very goal of Convention II and refers to a set of measures that should make the stay at sports events pleasant (availability of food and drinks, appropriate sanitary facilities, safety protocols).

On the other hand, in addition to all the aforementioned provisions and established standards aimed at suppressing violent and inappropriate behaviour at sports events, the conclusion is that Convention II does not

contain revolutionary solutions, that is, that on the way to that goal, it will not lead to radical changes. Although it is not in dispute that it has the provisions and established standards that we mentioned above, which can partially contribute to that goal, we are witnessing the expansion of hooliganism in stadiums and in halls throughout Europe, which also shows that certain solutions contained in Convention II are superficial and practical unattainable. Also, part of the responsibility for this problem must be borne by the Security and Protection Committee itself, because as an institutional support, practice has shown, it does not have effective mechanisms for implementing these ideas. Although the very idea of establishing a body of this nature, with clearly presented powers, was welcomed by the largest number of states and unequivocally accepted, however, there were no concrete results. Noting the existence of difficulties in the practical implementation of these provisions, we come to the part in which Convention II showed its greatest shortcomings. Namely, the set of provisions related to the change of the stadium infrastructure, in the first place, does not indicate the correlation between the non-adapted stadium infrastructure and violence in it, so the entities responsible for the implementation of these provisions on the basis of the given text cannot see the danger that may arise if they turn a deaf ear o requests of this kind. In practice, on the other hand, it turned out to be an open possibility that, in the name of that absence, those same subjects make different compromises when it comes to the construction of the stadium infrastructure. For example, football stadiums in Serbia use this gap, and therefore do not have adequate control systems at the entrances, but have prefabricated technical systems whose goal is to select spectators depending on the price they paid for the ticket, and not to contribute to their safety. However, as it is clear that one document, regardless of its legal force, cannot systematically eradicate the occurrence of violence at sports events, it should be noted that Convention II contains provisions that should represent guidelines for future development with the aim of preventing the occurrence and criminalization of such patterns of behaviour.

CRIMINAL-LEGAL PROTECTION AGAINST VIOLENCE AT SPORTS EVENTS IN EUROPEAN COUNTRIES – THE EXAMPLE OF ENGLAND

As we could see in the previous chapter, various forms of inappropriate, illegal and consequently harmful behaviour of actors of sports events were the main motive for the adoption of international standards aimed at regulating this issue. The specificity of the adopted documents is that they mostly acted retroactively, that is, they were ratified immediately after certain events that caused consequences of an enormous scale, as well as enormous public pressure. We are also witnesses, as the above-mentioned examples confirm, that football team matches are particularly inspiring for extreme groups or individuals, so, regardless of the fact that various forms of inappropriate behaviour appear at matches of other sports, in modern conditions there is an impression that such behaviour most pronounced precisely in this sport. Such a generalization, somewhat reasonable, is nevertheless not justified, i.e. in order to reduce the problem of improper behaviour at sports events to a socially acceptable level, it is necessary that the approach to the problem includes all aspects of this behaviour, including the possible place and time of their manifestation. This further implies that the complexity of this issue also lies in the fact that there are no clear preconditions that can be said to favour the emergence of this phenomenon, i.e. that unacceptable outbursts of violence occurred equally in developed and underdeveloped countries, smaller and larger continents, more precisely independent of the determinants of this type. However, there are several countries that are leading in this regard, that is, that can be singled out as an example of good practice. The first among them is England, a country that, in order to prevent illegal forms of behaviour in stadiums, adopted the standards identified above and brought their functioning to near perfection in practice. Just looking at the sports events that take place in this country indicates that, for example, infrastructure standards have been applied in such a way that this country is rightly used today as an illustration of the topic that this paper deals with.

Until the mid-1980s, hooliganism, claims Robert Carroll, was an integral part of the sports (football) scene in England, i.e. a striking feature of sporting events (1980, 77). According to Hall (Stuart Hall), this problem begins to be solved from the moment when violence of this type is identified as a social phenomenon and as such becomes a

political matter (a question of law and social control) (1978, 42). Although hooliganism in England manifested itself in the years before World War II, the first significant steps towards the normative formulation of this problem were made only in 1984, when the Police and Criminal Evidence Act 1984 was adopted, which gave the police the authority to supervise football hooligans. Already in the following year, the now famous tragedy at the Heysel stadium had a decisive influence on the change in the approach of the UK authorities towards the problem of this type of violence. The then Prime Minister of the United Kingdom Margaret Thatcher, realizing that tragedies of this nature irreversibly damage the reputation of this country in international relations and reflect the impression that extreme fans are stronger than the law (Veutney and Freeburn 2015, 209), began an unconditional, long-term and decisive confrontation with hooligans. Among the series of measures that were introduced at that time and the laws that were adopted, the following provisions stand out: prison sentences of 3-5 years were introduced, stadiums had no standing room, the serving of alcohol was prohibited, cameras were installed in stadiums and in the streets at the approaches to the stadium, complete numbering of seats was introduced and the sale of subscription tickets with an identification document... (Otašević 2014, 164). Emphasizing the position that football hooliganism was the "worst disease of the nation", Thatcher at the same time used the great public pressure that took place through the media in order to introduce stricter measures against deviant youth, the stronghold of the working class, and the game of football in general (Piskurek 2018, 96). In this sense, the adoption of a series of laws that further contributed to this struggle continued, among which the following stand out: the Sporting Events [Control of Alcohol] Act of 1985, the Public Order Act from 1986, Football Spectators Act from 1989, Football Offenses and Disorder Act from 1999 and Football Disorder Act from 2000.

The aforementioned normative solutions led to numerous changes, of course, and to the integration of the standards recommended by the Council of Europe Convention, but also to their further development. Namely, as we said, probably the most visible such example is represented by infrastructure standards, which began to be applied at the end of the 20th century and continue to develop to the extent that many of today's stadiums on the soil of this country are masterpieces of architecture. England was, therefore, the first to recognize the correlation between stadium infrastructure and the safety of direct and indirect actors of a

sporting event, adopted a normative framework for the application of these standards and thereby significantly reduced the risk of various forms of misconduct (Đorić 2017, 39-55). Accordingly, all stadiums in England today have chairs for sitting, the number of which must correspond to the estimated capacity of the stadium, and visitors are obliged to adhere to the numbering of the seats and to sit in their seats during the game. Also, in this wave of changes, significant steps have been taken to improve service standards, so every stadium has toilets that are clearly marked, and access to them is enabled for every visitor (including special categories, such as people with disabilities).

Although almost all the provisions contained in the laws mentioned here have their role in preventing and suppressing inappropriate behaviour patterns, first of all on football and then on all other fields, most theorists agree that the Football Spectators Act[10] from1989 is the one that to the greatest extent enabled noticeable results in practice, especially in terms of establishing standards of judicial cooperation and standards of police behaviour. The most important provision of this Act is contained in Chapter 15, which states that the UK courts can impose a measure of prohibition (so-called "restriction order") from attending sporting events, both at home and abroad, to those persons who have previously been registered and convicted of misdemeanours at football matches (Stott & Pearson 2006, 242). It should be noted that this law is a kind of upgrade of previous laws that tried to combat the ever-growing problem of hooliganism, and in the Western literature one can clearly see opinions that, in fact, say that based on the experience of previous laws, a whole series of shortcomings have been corrected by the new act, which, again, according to their opinion, is also its main value (Williams 2013, 2). However, the prohibition measure introduced by this Law also contains certain shortcomings that are primarily reflected in the imperfect solution that this measure can be imposed on all those persons who have records of violence in connection with football matches. However, underlines Williams (Adam Williams), the problem arises at the moment when such an act is not directly related to a football match, but without a doubt represents an act carried out by hooligans, insisting on the example when a group of extreme fans attacked an elderly woman in the wider centre of London, on a day when no games were played (2013, 2-3). In the given circumstances of the specific example, the court did not consider

[10] Football Spectators Act 1989. UK Public General Acts1989 p. 37. Retrieved April 15, 2022, from https://www.legislation.gov.uk/ukpga/1989/37/contents/enacted

that the legal requirement was met, stating that the assumption that it is about fans is not sufficient, that is, it is necessary that there is fulfilment of the main condition – that such an act is related to a football match. Several similar examples like the one mentioned here influenced the legislator to reconsider the solutions contained in the previously analysed law, and finally, after the new riots that marked the European football championship held in Belgium in 2000, to make additional efforts to eliminate these shortcomings. Accordingly, in the same year 2000, the Football Disorder Act[11] was adopted, which stipulates that the measure of banning attendance at sports events ("restriction order") can be imposed even in those situations where the manifestation of violent behaviour is not direct in connection with a football match. A significant contribution of this Law, as stated by Pearson (Geoff Pearson), is also in the provision that allows this measure to be imposed on those persons who have not been registered and convicted for committing offenses at football matches, if it is about persons who have been flagged by the police as entities that can incite riots and violence at matches (2006, 2). With this solution, the police received much greater and more effective powers in the fight against hooliganism at sports events, and the data (3,286 bans based on police recommendations) also show that the Ministry of Internal Affairs in the years after the adoption of the Law became the pivot of this type of struggle (Pearson 2006, 2). From the aforementioned analysis of the criminal-legal reaction to the violence of extreme fans in England, it is clear to note that many years of continuous work on this problem has yielded results, in the sense that violence at football and all other matches is an unimaginable phenomenon in this country. However, when looking at the wider picture of this problem, although the general impression of the public is that the then British Prime Minister Margaret Thatcher, with her decisive and uncompromising approach, solved the problem of hooliganism on the sports scene, the reality points to different facts. It is true, therefore, that violence in the stands in England is a thing of the past, especially after the tragedy at the Heysel stadium in which 39 English fans lost their lives, but it has not ceased to exist as such, that is, it has been partially moved from the stadium to the streets of British cities, but also to the stadiums and streets of those European cities where English clubs are visiting, and which do not have effective mechanisms to oppose this phenomenon.

[11] Football (Disorder) Act 2000. UK Public General Acts2000 p. 25. Retrieved April 15, 2022, from https://www.legislation.gov.uk/ukpga/2000/25/contents

CONCLUSION

The generally accepted point of view that socio-political processes throughout the 20th century, primarily globalization, transformed the basic role of sport, which today is reflected in its commercial effect, still did not erase the centuries-old testimony that it also has a noticeable ideological role. The effort to adapt sport to a broad concept of mass culture, with the additional aim of representing a counterweight to the boring and increasingly less acceptable everyday life, at the same time exposing the fact that it has become a tool of powerful industries less and less available to the common man, marks the first and crucial step towards its hypostasis. The new paradigm of sports, to be honest, is not only a consequence of the processes observed here, but the responsibility for the state of affairs in this area lies with the very relationships that are established, on the basis of which the competition gains primacy over the game, and the emerging rivalry is inevitably transferred to the fans as well. An indispensable element of this new paradigm, therefore, is inappropriate and improper behaviour, not only by the audience but also by other actors of sports events, and a whole series of social, economic and political factors that act synchronously ultimately make such patterns of behaviour grow into hard-to-understand extremism.

The history of the fight against violence at sports events, as we have seen in the paper, can be divided into two stages: the first, covers the time period from the end of World War I to the tragedy at the Heysel Stadium in 1985, which is characterized by a noticeably flexible and somewhat weak approach to this issue; the second, covers the time period immediately after the aforementioned tragedy and lasts until today, i.e. the period in which certain countries (cf. aut. England) have shown that it is possible to develop effective normative and social mechanisms to oppose the expansion of violent behaviour of this kind. A whole series of primarily international and then national documents and laws that were ratified and adopted in this period undoubtedly contributed to the improvement of international legal standards of criminal-legal protection against violence at sports events, however, the fact that most of them were adopted retroactively presents a certain problem, i.e. only after the manifestation of certain behaviours that had catastrophic consequences. The example of the mentioned country, which served as an example of the topic that is dealt with in the paper, shows that it is possible with legal provisions to reduce inappropriate behaviour of fans to a

socially acceptable level and that it is possible to establish successful international cooperation with the same goal. However, when we talk about the international cooperation of countries on this front, it should be noted that there is a sufficiently large space for further progress, especially between what was proclaimed and what was done. The daily witness to situations where fans from various countries, following their teams on away trips, continue with the practice of extreme activities (use of pyrotechnics, rioting, drugging and drinking...), quite decisively confirms this claim.

The existence of sport, bearing in mind all of the above, is quite endangered, and in order to avoid the most unfavourable scenario in this regard, it is necessary to provide sport with a position in society that will enable it to actively participate in the social and economic system of the country. Therefore, in order for such a status to be possible to be achieved from sport, all those elements that threaten it, which are embodied in the connection between sport-politics-crime, must be eliminated and an effective control function must be established that would reduce socially unacceptable behaviours to a minimum.

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МЕЂУНАРОДНО ПРАВНИ СТАНДАРДИ КАЗНЕНО-ПРАВНЕ ЗАШТИТЕ ОД НАСИЉА НА СПОРТСКИМ ПРИРЕДБАМА

Сажетак

Циљ рада јесте приказ ефикасности до сада примењих механизама за спречавање насиља и недоличног понашања на спортским приредбама, садржани у међународно правном оквиру и националном законодавству, а који су настали из праксе супротстављања овом облику насиља у појединим државама Западне Европе. Међународна сарадња на пољу казнено-правне заштите од насиља на спортским приредбама развила се након низа трагичних догађаја у другој половини XX века, с намером да се снагом закона и међународних конвенција успостави систем превентивног деловања како би се немиле сцене елиминисале из садржаја спортских активности. Како поједина друштва, поготову она у процесу транзиције, занемарују значај здравствено-рекреативне функције спорта, истовремено не чине довољно на плану ове превенције и промени оних друштвених релација које се налазе у основи девијантног понашања спортских актера, у првом реду навијача. На основу квалитативне анализе литературе, као основног методолошког приступа и анализе правног и институционалног оквира у овој области, констатује се да је на овом пољу у последњих неколико деценија учињено много корисних и ефикасних корака. Како насиље на спортским догађајима још увек егзистира као неизоставно обележје готово сваке активности ове врсте, на теренима и у халама широм Европе, да се приметити да постоји известан простор за даљи напредак у погледу дефинисаног циља. Користећи навијање као одбрамбени механизам идентификације, где сам такмичарски однос унутар игре ствара ривалитет, ови припадници углавном ма

маргинализованих друштвених група на овај начин артикулишу своје незадовољство на друштвено неприхватљив начин.

Кључне речи: спорт, навијачи, закон, хулигани, спортско насиље, међународно правни оквир, екстремизам.

ПРИКАЗИ

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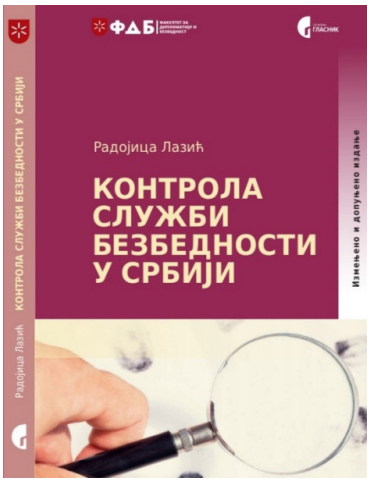
КОНТРОЛА СЛУЖБИ БЕЗБЕДНОСТИ У СРБИЈИ



Радојица Лазић. 2023. Контрола служби безбедности у Србији *(*измењено и допуњено издање*)*. Београд: Службени гласник / Факултет за дипломатију и безбедност, 291. стр.

Монографија „Контрола служби безбедности у Србији", аутора проф. др Радојице Лазића, настала је као резултат дугогодишњег изучавања система националне безбедности и представља научну студију која се бави најосетљивијим делом државног управног апарата, чији је посао везан за рад у тајности.

Анализирајући постојеће правне прописе, али и праксу која се односи на рад служби безбедности, монографија даје одговоре на актуелна питања, на методолошки коректан и структуриран начин.

Контрола служби безбедности једна је од најинтригантнијих тема у политичком животу, праву и политикологији и захтева разрађене правне и институционалне механизме који спречавају да се безбедносни сектор претвори у резервисани домен различитих центара моћи.

Полазећи од чињенице да је безбедност динамична категорија, да се законска регулатива која се односи на рад служби безбедности од последњег издања ове књиге значајно изменила и да су нове безбедносне претње утицале на то да систем националне безбедности на другачији начин буде постављен, јавила се

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оправдана потреба за изменом и допуном књиге (стр. 12).

Деликатност посла којим се службе безбедности баве, јасно налаже да оне морају бити предмет одговарајуће демократске и цивилне контроле. Многи научници и истраживачи из ове области слажу се у томе да не постоји јединствен нити општеприхваћен и применљив модел за њихову контролу и да у већини земаља контролу активности служби безбедности спроводе законодавне, извршне и судске власти као и цивилно друштво (стр. 15).

У монографији, структурисаној у девет целина, на самом почетку, поред свеобухватног дефинисања појмова битних за разумевање тематике, аутор изричито указује и на потребу разликовања оних појмова, до чијег мешања често долази, услед недовољног познавања ове области. Аутор анализира и друга питања, попут оних која се тичу међународноправних докумената а затим се дотиче начела од којих у великој мери зависи функционисање демократске и цивилне контроле над службама безбедности.

Већ у наредном поглављу, ставља се акценат на развојни пут служби безбедности у Србији, од Првог српског устанка до 2007. године, са посебним освртом на Брионски пленум, кључни догађај у реформи обавештајно-безбедносне делатности, након кога је некадашња УДБА трансформисана у Службу државне безбедности. Аутор потом пажњу посвећује Савезном савету за заштиту уставног поретка као и врстама и облицима контроле служби безбедности у бившој СФРЈ.

У Републици Србији постоје три службе безбедности, једна цивилна и две војне. То су: Безбедносно-информативна агенција (БИА), која представља посебну агенцију Владе Републике Србије, Војнобезбедносна агенција (ВБА) и Војнообавештајна агенција (ВОА), које су органи управе у саставу Министарства одбране (стр. 47).

Изучавајући обавештајно-безбедносни систем Републике Србије, аутор помиње надлежности, овлашћења и обавезе, а затим и организационе структуре безбедносних служби, с нарочитим освртом на посебне поступке и мере које припадници служби безбедности примењују у раду. Потом, у наредним поглављима, даје одговор на познато Платоново питање из времена грчке класичне филозофије: Ко чува чуваре?

Контролу и надзор служби безбедности спроводе парламентарна, извршна и судска власт,

али и независни државни органи (Заштитник грађана, Повереник за информације од јавног значаја и заштиту података о личности, Државна ревизорска институција, генерални инспекторати, буџетске инспекције и други). Посебне видове контроле остварују институције грађанског друштва (експертске групе, невладине организације, удружења грађана итд.) и јавност.

Као највише представничко тело и носилац уставотворне и законодавне власти у Србији, Народна скупштина у оквиру својих надлежности има и надзор над радом служби безбедности (стр. 119), коју остварује непосредно и преко надлежног Одбора за контролу служби безбедности, раније Одбора за одбрану и безбедност.

Како би успео да одговори захтевима контроле, парламент мора имати добар формални оквир и овлашћења за рад, као и изражену политичку вољу да контролу заиста и врши. Потребно је да посланици схвате да је контрола сектора безбедности њихова обавеза према грађанима и демократији, а не одраз поверења или неповерења у руководство (министре или директоре служби) или запослене у овим институцијама. За квалитетну контролу служби безбедности потребна су не само снажна контролна овлашћења која се примењују, него и висок степен међусобног поштовања и уважавања између контролора и контролисаних. Често је присутна пракса да службе безбедности не верују парламенту и плаше се да ће чланови надзорних одбора обелоданити њихове поверљиве информације. Имајући то у виду, успостављају се сложене процедуре и механизми за заштиту у коришћењу тих података. Тај проблем је у неким земљама решен одредбама закона (САД, Норвешка, Србија). У неким случајевима, то зависи и од чланова тела које врши надзор, тј. од савесности у раду са тајним подацима (стр. 107).

Када је у питању контрола коју спроводи законодавна власт, аутор истиче да норме Закона о основама уређења служби безбедности представљају велико унапређење у односу на одговарајуће одредбе Закона о Безбедносно-информативној агенцији, који парламентарну контролу и контролу уопште третира на најопштији начин.

Још једна интересантна чињеница је да по одредбама ранијег пословника није било ограничења на седницама одбора, пошто су биле отворене за јавност, па је њима могао да присуствује било који посланик. Управо из тог разлога, дешавало се да су материјали за седнице тог

типа били доступни свим посланицима, што је, из аспекта значаја безбедносних података које су такви материјали садржали, недопустиво (стр. 130).

Основно питање које се сада поставља је како обезбедити делотворну контролу над службама безбедности, а да се при томе не повреди „принцип тајности"?

Уочено је да се највећи недостаци, приликом спровођења надзора, крију у ономе што закон не помиње. Да би биле ефикасне, спољашње контроле и надзор, посебно у организацијама затвореног типа, какве су службе безбедности, морају се ослањати на механизме и инструменте унутрашње контроле, где се пре свега мисли на генералног инспектора.

Даље, у књизи, аутор износи чињенице везане за контролу служби безбедности коју спроводе органи извршне власти, а пре свега указује на могуће злоупотребе. У конкретном примеру, Влада се, према добијеним подацима од јавних службеника може односити као према свом власништву, под маском „националне безбедности", дакле она може покушати да прикрије информације које се тичу одговорности безбедносних служби, а које би према закону морале бити предмет јавне расправе. У другом случају, Влада може користити безбедносне агенције, односно њихове могућности, ради прибављања информација за потребе партијске политике, на пример, за сакупљање података о домаћим политичким противницима, што је недопустиво.

Полазећи од чињенице да о Савету за националну безбедност нема довољно материјала, да је активност, по природи посла којим се бави, делом тајновита, као и да је стручна литература по том питању прилично оскудна, аутор износи констатације и препоруке које би требало сагледати ради темељнијег и свеобухватнијег регулисања контролних механизама у националном законодавству везано за рад овог тела (стр. 159). Даље, аутор се осврће и на рад Бироа за координацију рада служби безбедности и Канцеларије Савета за националну безбедност и заштиту тајних података.

Судска контрола, такође је важна компонента, када је реч о демократској и цивилној контроли служби безбедности и у највећем броју случајева заснива се на контроли законитости предузимања посебних доказних радњи. Службе безбедности за законску примену неких посебних поступака и мера, попут тајног надзора комуникација, морају добити писмену судску сагласност, како би се избегло

недозвољено нарушавање људских права и слобода.

Контролу примене мера од стране служби безбедности остварују и независне државне институције. Имајући то у виду, аутор у завршном делу монографије наводи улогу и надлежности Заштитника грађана, Повереника за информације од јавног значаја и заштиту података о личности, као и Државне ревизорске институције. Закључује да је поред ових субјеката, за адекватну контролу служби безбедности неоходна и сарадња са невладиним организацијама, медијима али и са јавношћу (стр. 243).

Наглашавајући важност унутрашње контроле и дисциплинске одговорности у службама безбедности, аутор заокружује научну студију, која ће по мишљењу стручног рецензентског тима, проф. др Андреје Савића, проф. др Милана Шкулића, и проф. др Милана Јовановића, бити незаобилазна литература за све који желе да проучавају и истражују овај феномен.

AUTHOR GUIDELINES

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Research article can have up to 40,000 characters with spaces, including footnotes. When counting the characters leave out the reference list.

Review can have up to 15,000 characters with spaces.

Book review can have up to 10,000 characters with spaces.

When counting the characters, use the option Review/Word Count/Character (with spaces) and check the box Include textboxes, footnotes and endnotes.

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The bibliographic data in both the parenthetical citation and reference list should be cited in the original language of the source. The English translation of the reference title should be enclosed in square brackets after the original title. The references originally written in Cyrillic script should be transliterated into Latin script.

Below are the rules and examples of citing the bibliographic information in the reference list and in the text. For each type of source, a citation rule is given first, followed by an example of citation in the reference list and bibliographic parenthesis.

The bibliographic parenthesis, as a rule, is set off at the end of the sentence, before the punctuation mark. It contains the author's surname, the year of publication and page numbers pointing to a specifically contextual page or range of pages, as in the following example: (Mearsheimer 2001, 15–17).

Books

Books with one author

Surname, Name. Year of publication. *Title*. Place of publication: Publisher.

> Mearsheimer, John J. 2001. *The Tragedy of Great Power Politics*. New York: W. W. Norton & Company.
>
> (Mearsheimer 2001)

Books with two or three authors

Surname, Name, and Name Surname. Year of publication. *Title*. Place of publication: Publisher.

> Brady, Henry E., and David Collier. 2010. *Rethinking Social Inquiry: Diverse Tools, Shared Standards.* Lanham: Rowman & Littlefield Publishers.
>
> (Brady and Collier 2010)
>
> Pollitt, Christopher, Johnston Birchall, and Keith Putman. 1998. *Decentralising Public Service Management*. London: Macmillan Press.
>
> (Pollitt, Birchal and Putman 1998)

Books with four or more authors

Surname, Name, Name and Surname, Name and Surname, and Name and Surname. Year of publication. *Title*. Place of publication: Publisher.

> Pollitt, Christopher, Colin Talbot, Janice Caulfield, and Amanda Smullen. 2005. *Agencies: How Governments do Things Through Semi-Autonomous Organizations*. New York: Palgrave Macmillan.
>
> (Pollitt et al. 2005)

Editor(s) or translator(s) in place of the author(s)

Surname, Name, Name and Surname, ed. Year of publication. *Title*. Place of publication: Publisher.

> Kaltwasser, Cristobal Rovira, Paul Taggart, Paulina Ochoa Espejo, and Pierre Ostigoy, eds. 2017. *The Oxford Handbook of Populism.* New York: Oxford University Press.
>
> (Kaltwasser et al. 2017)

Chapter in an edited book

Surname, Name. Year of publication. "Title of the chapter." In *Title*, ed. Name Surname, pages range. Place of publication: Publisher.

> Lošonc, Alpar. 2019. "Discursive dependence of politics with the confrontation between republicanism and neoliberalism." In *Discourse and Politics*, eds. Dejana M. Vukasović and Petar Matić, 23–46. Belgrade: Institute for Political Studies.
>
> (Lošonc 2019)

Journal Articles

Regular issue

Surname, Name. Year of publication. "Title of the article." *Journal* Volume, if available (issue): page range. DOI.

> Ellwood, David W. 2018. "Will Brexit Make or Break Great Britain?" *Serbian Political Thought* 18 (2): 5–14. doi: 10.22182/spt.18212018.1.
>
> (Ellwood 2018)

Special issue

Surname, Name. Year of publication. "Title of the article." In "Title of the special issue", ed. Name Surname, Special issue, *Journal*: page range. DOI.

Chin, Warren. 2019. "Technology, war and the state: past, present and future." In "Re-visioning war and the state in the twenty-first century." Special issue, *International Affairs* 95 (4): 765–783. doi: 10.1093/ia/iiz106.

(Chin 2019)

Encyclopedias and dictionaries

When the author/editor is known

Surname, Name, Name Surname, ed. Year of publication. *Title*. Vol. Place of publication: Publisher.

Badie, Bertrand, Dirk Berg-Schlosser, and Leonardo Morlino, eds. 2011. *International Encyclopedia of Political Science*. Vol. 1. Los Angeles: Sage Publications.

(Badie, Berg-Schlosser and Morlino 2011)

When the author/editor is unknown

Title. Year of publication. Place of publication: Publisher.

Webster's Dictionary of English Usage. 1989. Springfield, Massachusetts: Merriam-Webster Inc.

(*Webster's Dictionary of English Usage* 1989)

PhD dissertation

Surname, Name. Year of publication. "Title of the dissertation." PhD diss. University.

Munger, Frank J. 1955. "Two-Party Politics in the State of Indiana." PhD diss. Harvard University.

(Munger 1955, 17–19)

Newspapers and magazines

Signed articles

Surname, Name. Year of publication. "Title of the article." *Newspaper/Magazine* Date: page range.

Clark, Phil. 2018. "Rwanda's Recovery: When Remembrance is Official Policy." *Foreign Affairs*, January/February 2018: 35–41.

(Clark 2018)

Unsigned articles

Title of the newspaper/magazine. Year of publication. "Title of the article." Date: page range.

New York Times. 2002. "In Texas, Ad Heats Up Race for Governor." July 30, 2002.

(*New York Times* 2002)

Corporate author

Name of the corporate author [acronym if needed]. Year of publication. *Title of the publication*. Place of publication: Publisher.

International Organization for Standardization [ISO]. 2019. *Moving from ISO 9001:2008 to ISO 9001:2015*. Geneva: International Organization for Standardization.

(International Organization for Standardization [ISO] 2019) – *The first in-text citation*

(ISO 2019) – *Second and all subsequent citations*

Special cases of referencing

Citing edition other than the first

Surname, Name. Year of publication. *Title*, edition number. Place of publication: Publisher.

Bull, Hedley. 2012. *The Anarchical Society: A Study of Order in World Politics*, 4th edition. New York: Columbia University Press.

(Bull 2012)

Multiple sources of the same author

1) *Multiple sources by the same author* should be arranged chronologically by year of publication in ascending order.

Mearsheimer, John J. 2001. *The Tragedy of Great Power Politics.* New York: W. W. Norton & Company.

Mearsheimer, John J. 2010. "The Gathering Storm: China's Challenge to US Power in Asia." *The Chinese Journal of International Politics* 3 (4): 381–396. doi: 10.1093/cjip/poq016.

2) *Multiple sources by the same author from the same year* should be alphabetized by title, with lowercase letters attached to the year. Those letters should be used in parenthetical citation as well.

Walt, Stephen M. 2018a. *The Hell of Good Intentions: America's Foreign Policy Elite and the Decline of U.S. Primacy*. New York: Farrar, Straus and Giroux.

(Walt 2018a)

Walt, Stephen M. 2018b. "Rising Powers and the Risk of War: A Realist View of Sino-American Relations." In *Will China's Rise be Peaceful: Security, Stability and Legitimacy*, ed. Asle Toje. 13–32. New York: Oxford University Press.

(Walt 2018b)

3) *Single-authored sources precede multiauthored sources beginning with the same surname* or written by the same person.

Pollitt, Christopher. 2001. "Clarifying convergence. Striking similarities and durable differences in public management reform." *Public Management Review* 3 (4): 471–492. doi: 10.1080/14616670110071847.

Pollit Christopher, Johnston Birchall, and Keith Putman. 1998. *Decentralising Public Service Management*. London: Macmillan Press.

4) *Multiauthored sources with the same name and surname* of the first author should continue to be alphabetized by the second author's surname.

Pollitt Christopher, Johnston Birchall, and Keith Putman. 1998. *Decentralising Public Service Management*. London: Macmillan Press.

Pollitt Christopher, Colin Talbot, Janice Caulfield, and Amanda Smullen. 2005. *Agencies: How Governments do Things Through Semi-Autonomous Organizations*. New York: Palgrave Macmillan.

Special cases of parenthetical citation

Exceptions to the rule of placing the parenthetical citation at the end of a sentence

1) If the *author is mentioned in the text*, even if used in a possessive form, the year must follow in parenthesis, and page numbers should be put in the brackets at the end of the sentence.

For the assessment, see Kaltwasser *et al*. (2017) ... (112).

According to Ellwood (2018) … (7).

2) When *quoting directly*, if the name of the author precedes the quotation, the year and page numbers must follow in parenthesis.

Mearsheimer (2001, 28) claims that: "..."

3) When *using the same source multiple times in one paragraph*, the parenthetical citation should be placed either after the last reference (or at the end of the paragraph, preceding the final period) if the same page (or page range) is cited more than once, or at the first reference, while the subsequent citations should only include page numbers.

Do not use *ibid* or *op. cit.* with repeated citations.

Using brief phrases such as "see", "compare" etc.

Those phrases should be enclosed within the parenthesis.

(see Ellwood 2018)

Using secondary source

When using a secondary source, the original source should be cited in parenthesis, followed by "quoted in" and the secondary source. The reference list should only include the secondary source.

"Its authority was greatly expanded by the constitutional revision of 1988, and the Court of Arbitration can now be regarded as a 'genuine constitutional court'" (De Winter and Dumont 2009, 109 cited in: Lijphart 2012, 39–40).

Lijphart, Arend. 2012. *Patterns of Democracy: Government Forms and Performance in Thirty-Six Countries*, 2nd edition. New Haven & London: Yale University Press.

Multiple sources within the same parentheses

1) When *multiple sources* are cited, they should be separated by semicolons.

(Mearsheimer 2001, 34; Ellwood 2018, 7)

2) When *multiple sources by the same author*, but published in different years are cited, the name of the author is cited only the first time. The different years are separated by commas or by semicolon where page numbers are cited.

(Mearsheimer 2001, 2010) or (Mearsheimer 2001, 15–17; 2010, 390)

3) When *different authors share the same surname*, include the first initial in the parenthesis.

(M. Chiti 2004, 40), (E. Chiti 2004, 223)

Chiti, Edoardo. 2004. "Administrative Proceedings Involving European Agencies." *Law and Contemporary Problems* 68 (1): 219–236.

Chiti, Mario. 2004. "Forms of European Administrative Action." *Law and Contemporary Problems* 68 (1): 37–57.

Legal and Public Documents

Sections, articles or paragraphs can be cited in the parentheses. They should be appropriately abbreviated.

Constitutions and laws

The title of the legislative act [acronym if needed], "Official Gazette of the state" and the number of the official gazette, or the webpage and the date of last access.

The Constitution of the Republic of Serbia, "Official Gazette of the Republic of Serbia", No. 98/06.

(The Constitution of the Republic of Serbia, Art. 33)

The Law on Foreign Affairs [LFA], "Official Gazette of the Republic of Serbia", No. 116/2007, 126/2007, and 41/2009.

(LFA 2009, Art. 17)

Succession Act [SA], "Official Gazette of the Republic of Croatia", No. 48/03, 163/03, 35/05, 127/13, and 33/15 and 14/19.

(SA 2019, Art. 3)

An Act to make provision for and in connection with offences relating to offensive weapons [Offensive Weapons Act], 16th May 2019, www.legislation.gov.uk/ukpga/2019/17/pdfs/ukpga_20190017_en.pdf, last accessed 20 December 2019.

(Offensive Weapons Act 2019)

Government decisions and decisions of the institutions

The name of the government body or institution [acronym or abbreviation], the title and number of the decision, date of the decision passing, or the webpage and the date of the last access.

Protector of Citizens of the Republic of Serbia [Protector of Citizens], Opinion No. 19–3635/11, 11 January 2012, https://www.ombudsman.org.rs/attachments/064_2104_Opinion%20HJC.pdf, last accessed 20 December 2019.

(Protector of Citizens, 19–3635/11)

U.S. Department of the Treasury [USDT], Treasury Directive No. 13–02, July 20, 1988, https://www.treasury.gov/about/role-of-treasury/orders-directives/Pages/td13-02.aspx, last assessed 20 December 2019.

(USDT, 13–02)

Legislative acts of the European Union

The title of the legislative act, the number of the official gazette, the publication date and the number of the page in the same format as on the *EUR-lex* website: https://eur-lex.europa.eu/homepage.html.

Regulation (EU) No 182/2011 of the European Parliament and of the Council of 16 February 2011 laying down the rules and general principles concerning mechanisms for control by Member States of the Commission's exercise of implementing powers, OJ L 55, 28.2.2011, p. 13–18.

(Regulation 182/2011, Art. 3)

Treaties

European Union founding treaties

Title of the treaty or title of the consolidated version of the treaty [acronym], information on the treaty retrieved from the official gazette in the same format as on the *EUR-lex* website: https://eur-lex.europa.eu/homepage.html.

Treaty on European Union [TEU], OJ C 191, 29.7.1992, p. 1–112.

(TEU 1992, Art. J.1)

Consolidated version of the Treaty on European Union [TEU], OJ C 115, 9.5.2008, p. 13–45.

(TEU 2008, Art. 11)

Consolidated version of the Treaty on the Functioning of the European Union [TFEU], OJ C 202, 7.6.2016, p. 1–388.

(TFEU 2016, Art. 144)

Other treaties

Title of the treaty [acronym or abbreviation], date of conclusion, UNTS volume number and registration number on the *United Nations Treaty Collection* website: https://treaties.un.org.

Marrakesh Agreement Establishing the World Trade Organization [Marrakesh Agreement], 15 April 1994, UNTS 1867, I-31874.

(Marrakesh Agreement 1994)

International Covenant on Civil and Political Rights [ICCPR], 16 December 1966, UNTS 999, I-14668.

(ICCPR 1966)

Treaty of Peace between the State of Israel and the Hashemite Kingdom of Jordan [Israel Jordan Peace Treaty], 26 October 1994, UNTS 2042, I-35325.

(Israel Jordan Peace Treaty 1994)

Decisions of international organizations

The name of the international organization and its body [acronym], the decision number, the title of the decision, the date of the decision passing.

United Nations Security Council [UNSC], S/RES/1244 (1999), Resolution 1244 (1999) Adopted by the Security Council at its 4011th meeting, on 10 June 1999.

(UNSC, S/RES/1244)

Parliamentary Assembly of the Council of Europe [PACE], Doc. 14326, Observation of the presidential election in Serbia (2 April 2017), 29 May 2017.

(PACE, Doc. 14326, para. 12)

Case law

Case law of the courts in the Republic of Serbia

The type of the act and the name of the court [acronym of the court], the case number with the date of the decision passing, the name and number of the official gazette where the decision is published – if available.

Decision of the Constitutional Court of the Republic of Serbia [CCRS], IUa-2/2009 of 13 June 2012, "Official gazette of the Republic of Serbia", No. 68/2012.

(Decision of CCRS, IUa-2/2009)

Decision of the Appellate Court in Novi Sad [ACNS], Rzr–1/16 of 27 April 2016.

(Decision of ACNS, Rzr–1/16)

Case law of the International Court of Justice

The name of the court [acronym], *the case title*, type of the decision with the date of the decision passing, the name and number of I.C.J. Reports issue where the decision is published, page number.

International Court of Justice [ICJ], *Application of the Interim Accord of 13 September 1995 (the Former Yugoslav Republic of Macedonia* v. *Greece)*, Judgment of 5 December 2011, I.C.J. Reports 2011, p. 644.

(ICJ Judgment 2011)

International Court of Justice [ICJ], *Accordance with the International Law of the Unilateral Declaration of Independence in Respect of Kosovo*, Advisory Opinion of 22 July 2010, I.C.J. Reports, p. 403.

(ICJ Advisory Opinion 2010)

Case law of the Court of Justice of the European Union

The case title, the case number, type of the case with the date of the decision passing, ECLI.

United Kingdom of Great Britain and Northern Ireland v. European Parliament and Council of the European Union, Case C-270/12, Judgment of the Court (Grand Chamber) of 22 January 2014, ECLI:EU:C:2014:18.

(*United Kingdom of Great Britain and Northern Ireland v. European Parliament and Council of the European Union*, C-270/12) or

(CJEU, C-270/12)

United Kingdom of Great Britain and Northern Ireland v. European Parliament and Council of the European Union, Case C-270/12, Opinion of Advocate General Jääskinen delivered on 12 September 2013, ECLI:EU:C:2013:562.

(Opinion of AG Jääskinen, C-270/12)

Case law of the European Court of Human Rights

The case title, number of the application, type of the case with the date of the judgment passing, ECLI.

Pronina v. Ukraine, No. 63566/00, Judgment of the Court (Second Section) on Merits and Just Satisfaction of 18 July 2006, ECLI:CE:ECHR:2006:0718JUD006356600.

(*Pronina v. Ukraine* 63566/00, par. 20) or

(ECHR, 63566/00, par. 20)

Case law of other international courts and tribunals

The name of the court [acronym], the case number, *the case title*, type of the decision with the date passing.

International Tribunal for the Prosecution of Persons Responsible for Serious Violations of International Humanitarian Law Committed in the Territory of the Former Yugoslavia since 1991 [ICTY], Case No. IT-94-1-A-AR77, *Prosecutor v. Dusko Tadic*. Appeal Judgement on Allegations of Contempt Against Prior Counsel, Milan Vujin. Judgment of 27 February 2001.

(*Prosecutor v. Dusko Tadic*, IT-94-1-A-AR77) or

(ICTY, IT-94-1-A-AR77)

Archive sources

Name of the repository [acronym], title or number of the fond [acronym], box number, folder number – if available, reference code, "title of the document" – or, if it is not available, provide a short description by answering the questions who? whom? what?, place and date – or n.d. if no date is provided.

Arhiv Srbije [AS], MID, K-T, f. 2, r93/1894, "Izveštaj Ministarstva inostranih dela o postavljanju konzula", Beograd, 19. april 1888.

(AS, MID, K-T, f. 2)

(AS, MID, f. 2) – *When the folder number is known only*

Dalhousie University Archives [DUA], Philip Girard fonds [PG], B-11, f. 3, MS-2-757.2006-024, "List of written judgements by Laskin," n.d.

(DUA, PG, B-11, f. 3)

Web sources

Surname, Name or name of the corporate author [acronym]. Year of publication or n.d. – if the year of publication cannot be determined. "The name of the web page." *The name of the web site*. Date of creation, modification or the last access to the web page, if the date cannot be determined from the source. URL.

Bilefsky, Dan, and Ian Austen. 2019. "Trudeau Re-election Reveals Intensified Divisions in Canada." *The New York Times*. https://www.nytimes.com/2019/10/22/world/canada/trudeau-re-elected.html.

(Bilefsky and Austen 2019)

Institute for Political Studies [IPS]. n.d. "The 5th International Economic Forum on Reform, Transition and Growth." *Institute for Political Studies*. Last accessed 7 December 2019. http://www.ips.ac.rs/en/news/the-5th-international-economic-forum-on-reform-transition-and-growth/.

(Institute for Political Studies [IPS] n.d.) – *First in-text citation*

(IPS n.d.) – *Second and every subsequent citation*

Associated Press [AP]. 2019. "AP to present VoteCast results at AAPOR pooling conference." May 14, 2019. https://www.ap.org/press-releases/2019/ap-to-present-votecast-results-at-aapor-polling-conference.

(AP 2019)

TEXT FORMATTING

General guidelines in writing the manuscript

The manuscript should be written in Word, in the following manner:

- Paper size: A4;

- Margins: Normal 2.54 cm;
- Use roman font (plain letters) to write the text, unless specified otherwise;
- Line spacing: 1.5;
- Footnote line spacing: 1;
- Title font size: 14 pt;
- Subtitles font size: 12 pt;
- Text font size: 12 pt;
- Footnote font size: 10 pt;
- Tables, charts and figures font size: 10 pt;
- Use Paragraph/Special/First line at 1.27 cm;
- Text alignment: Justify;
- Font color: Automatic;
- Page numbering: Arabian numerals in lower right corner;
- Do not break the words manually by inserting hyphens to continue the word in the next line;
- Save the manuscript in the .doc format.

Research article manuscript preparation

The manuscript should be prepared in the following manner:

Name and surname of the first author*

* In the footnote: E-mail address: The institutional e-mail address is strongly recommended.

Affiliation

Name and surname of the second author

Affiliation

TITLE OF THE PAPER**

** In the footnote: Optionally, include one of the following (or similar) information: 1) name and number of the project on which the paper was written: 2) the previous presentation of the paper on a scientific conference as an oral presentation under the same or similar name; or 3) the research presented in the paper was conducted while writing the PhD dissertation of the author.

Abstract

Abstract, within 100–250 words range, contains the subject, aim, theoretical and methodological approach, results and conclusions of the paper.

Keywords: Below the abstract, five to ten **key words** should be written. Key words should be written in roman font and separated by commas.

The paper can have maximum of three levels of subtitles. **Subtitles** should not be numbered. They should be used in the following manner:

FIRST LEVEL SUBTITLE

Second level subtitle

Third level subtitle

Tables, charts and figures should be inserted in the following manner:

- Above the table/chart/figure, center the name of Table, Chart or Figure, an Arabic numeral, and the title in roman font;
- Below the table/chart/figure, the source should be cited in the following manner: 1) if

the table/chart/figure is taken from another source, write down *Source:* and include the parenthetical citation information of the source; or 2) if the table/chart/figure is not taken from another source, write down *Source:* Processed by the author.

Use in-text references according to *Citing and referencing*.

Use the footnotes solely to provide remarks or broader explanations.

REFERENCES

References should be listed after the text of the paper, prior to the Resume in the following manner:

- the first line of each reference should be left intended, and the remaining lines should be placed as hanging by 1.27 cm using the option Paragraph/Special/Hanging;
- all the references should be listed together, without separating legal acts of archives;
- the references should not be numbered;
- list only the references used in the text.

After the reference list, write the name and surname of the author, the tile of the paper and resume in Serbian in the following manner:

Име и презиме првог аутора*

* Фуснота: Имејл-адреса аутора: Препоручује се навођење институционалне имејл-адресе аутора.

Име и презиме другог аутора

НАСЛОВ

Резиме

Resume (Резиме) up to 1/10 length of the paper contains the results and conclusions of the paper which are presented in greater scope than in the abstract.

Keywords (Кључне речи): Key words should be written in roman font and separated by commas.

Review preparation

A review should be prepared in the same manner as the research article, but leaving out abstract, keywords and resume.

Book review preparation

Book review should be prepared in the following manner:

Split the text into **two columns**.

Name and surname of the author*

* In the footnote: E-mail address: The institutional e-mail address is strongly recommended.

Affiliation

TITLE OF THE BOOK REVIEW

Below the title **place the image of the front cover**;

Below the image of the front cover list the book details according to the following rule:

Name and surname of the author. Year of publication. *Title of the book*. Place of publication: Publisher, total number of pages.

The text of the book review should be prepared following the guidelines of the research article preparation.

УПУТСТВО ЗА АУТОРЕ

У часопису *Политика националне безбедности* објављују се радови који представљају резултат најновијих теоријских и емпиријских научних истраживања у области политичких наука. Аутори би приликом писања радова требало да се позивају претежно на резултате научних истраживања који су објављени у научним часописима, првенствено у часописима политиколошке тематике.

Радови се објављују на српском језику и ћириличком писму или енглеском, руском и француском језику.

Часопис се објављује два пута годишње. Рокови за слање радова су: 1. април и 1. октобар.

Исти аутор не може да објави рад у два узастопна броја часописа, без обзира да ли је реч о самосталном или коауторском раду.

Радове слати на имејл-адресу: pnb@ips.ac.rs.

Научни чланак може имати највише 40.000 карактера са размацима, укључујући фусноте. Приликом бројања карактера изоставити списак референци. Изузетно, монографска студија може бити већег обима у складу са одредбама *Правилника о поступку, начину вредновања и квантитативном исказивању научноистраживачких резултата истраживања*.

Осврт може имати највише 15.000 карактера са размацима.

Приказ књиге може имати највише 10.000 карактера са размацима.

Приликом провере броја карактера користити опцију *Review/Word Count/Character (with spaces)* уз активирану опцију *Include textboxes, footnotes and endnotes*.

НАЧИН ЦИТИРАЊА

Часопис *Политика националне безбедности* користи делимично модификовани Чикаго стил цитирања (17. издање приручника *Chicago Manual of Style*), што подразумева навођење библиографске парентезе (заграде) по систему аутор–датум у тексту, као и списак референци са пуним библиографским подацима након текста рада.

Податке у библиографској парентези и списку референци навести на језику и писму на коме је референца објављена.

У наставку се налазе правила и примери навођења библиографских података у списку референци и у тексту. За сваку врсту референце прво је дато правило навођења, а затим пример навођења у списку референци и библиографској парентези.

Библиографска парентеза се по правилу наводи на крају реченице, пре интерпункцијског знака, и садржи презиме аутора, годину објављивања и одговарајући број страна, према следећем примеру: (Суботић 2010, 15–17).

Монографија

Један аутор

Презиме, име. Година издања. *Наслов*. Место издања: издавач.

Суботић, Момчило. 2010. *Политичка мисао србистике.* Београд: Институт за политичке студије.

(Суботић 2010)

Mearsheimer, John J. 2001. *The Tragedy of Great Power Politics*. New York: W. W. Norton & Company.

(Mearsheimer 2001)

Два или три аутора

Презиме, име, и име презиме. Година издања. *Наслов*. Место издања: издавач.

Стојановић, Ђорђе, и Живојин Ђурић. 2012. *Анатомија савремене државе.* Београд: Институт за политичке студије.

(Стојановић и Ђурић 2012)

Pollitt Christopher, Johnston Birchall, and Keith Putman. 1998. *Decentralising Public Service Management*. London: Macmillan Press.

(Pollitt, Birchall, and Putman 1998)

Четири и више аутора

Презиме, име, име и презиме, име и презиме, и име презиме. Година издања. *Наслов*. Место издања: издавач.

Милисављевић, Бојан, Саша Варинац, Александра Литричин, Андријана Јовановић, и Бранимир Благојевић. 2017. *Коментар Закона о јавно-приватном партнерству и концесијама: према стању законодавства од 7. јануара 2017. године*. Београд: Службени гласник; Правни факултет.

(Милисављевић и др. 2017)

Уредник/приређивач/преводилац уместо аутора

Након навођења имена, ставити зарез, па након тога одговарајућу скраћеницу на језику и писму референце, нпр. „ур.", „прев." „prir.", „ed.", „eds."

Kaltwasser, Cristobal Rovira, Paul Taggart, Paulina Ochoa Espejo, and Pierre Ostigoy, eds. 2017. *The Oxford Handbook of Populism.* New York: Oxford University Press.

(Kaltwasser et al. 2017)

Поглавље у зборнику

Презиме, име. Година издања. „Наслов поглавља." У *Наслов*, ур. име презиме, број страна на којима се налази поглавље. Место издања: издавач.

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