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## STRENGTHENING CYBER DEFENSES - THE CRUCIAL ROLE OF PHISHING SIMULATION IN MODERN SECURITY STRATEGIES

Avtandil Bichnigauri,<sup>1</sup> Ioseb Kartvelishvili,<sup>2</sup>  
Otar Shonia,<sup>3</sup> Daviti Bichnigauri,<sup>4</sup> Otar Gudadze,<sup>5</sup>  
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### ABSTRACT

In today's digital landscape, the omnipresence of cyber threats, particularly phishing attacks, presents a critical challenge to organizations worldwide. Exploiting human vulnerabilities, these attacks bypass sophisticated security measures, making them a pressing concern for companies across industries. To mitigate these risks, organizations are increasingly turning to proactive strategies, such as phishing simulation. This article explores the evolving nature of cyber threats, the necessity for robust defenses in companies, and the pivotal role of phishing simulation in fortifying cybersecurity measures. It delves into the intricacies of phishing simulation, its implementation strategies, and its transformative impact on creating a more resilient security infrastructure.

**Keywords:** cyber threats, phishing attacks, human vulnerabilities, proactive strategies, phishing simulation, robust defenses, cybersecurity measures, implementation strategies, resilient security infrastructure.

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<sup>1</sup> Ph.D., Assistant of the Faculty of Informatics and Management Systems, Georgian Technical University

<sup>2</sup> Professor of the Faculty of Informatics and Management Systems, Georgian Technical University

<sup>3</sup> Professor of the Faculty of Informatics and Management Systems, Georgian Technical University

<sup>4</sup> Full-Stack Web Developer and Cyber Security Researcher

<sup>5</sup> Master of the Faculty of Informatics and Management Systems, Georgian Technical University

## INTRODUCTION

In the ever-evolving digital ecosystem, the omnipresent threat of cyber attacks, especially phishing assaults, stands as a formidable challenge for organizations worldwide. These insidious attacks, adept at exploiting human vulnerabilities, transcend conventional security measures, posing a significant risk to companies across diverse industries.

As the reliance on interconnected systems intensifies, the need for robust defenses against phishing attacks becomes increasingly imperative. Cybercriminals employ sophisticated tactics, leveraging psychological manipulation and deceptive tactics to breach defenses, making traditional security protocols insufficient.

Consequently, organizations are compelled to adopt proactive strategies to safeguard their data, operations, and reputation. Among these strategies, phishing simulation has emerged as a proactive and indispensable tool in the cybersecurity arsenal. By simulating realistic scenarios and assessing employee readiness, these simulations play a pivotal role in educating and fortifying defenses against phishing threats.

This article endeavors to delve deeply into the dynamic landscape of cyber threats, the pressing need for robust defenses within organizations, and the transformative role of phishing simulation in reinforcing cybersecurity measures. It explores the nuances of phishing simulation implementation, its multifaceted impact, and its instrumental role in shaping a resilient security infrastructure amid the ever-changing threat landscape.

## MAIN PART

**Understanding Phishing Attacks:** Phishing attacks represent a sophisticated form of cyber threats that exploit human psychology and trust. These attacks, often disguised as legitimate communications, aim to deceive individuals into divulging sensitive information or performing actions that compromise security. Leveraging social engineering tactics, such as urgency or familiarity, phishing emails and messages coerce recipients into clicking malicious links, downloading malware, or sharing confidential data.



Fig. 1. Phishing attack performance diagram



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**The Necessity for Proactive Defenses:** The evolving nature of cyber threats demands a proactive approach to cybersecurity. Traditional security measures, while vital, often fall short in combating the agility and adaptability of phishing attacks. As businesses increasingly operate within interconnected digital ecosystems, the vulnerability of human elements to manipulation by cybercriminals heightens the urgency for robust defenses.

**Phishing Simulation as a Strategic Defense:** In response to the escalating sophistication of phishing attacks, organizations turn to phishing simulation as a preemptive defense mechanism. These simulations replicate authentic phishing scenarios, allowing organizations to assess employee responses and readiness levels. Beyond assessment, phishing simulations serve as potent educational tools. They cultivate a culture of heightened awareness among employees, imparting crucial skills to identify and thwart phishing attempts.

**Implementing Phishing Simulation Strategies:** Successful implementation of phishing simulation involves tailoring scenarios to mirror actual threats faced by the organization. These simulations range in complexity, providing immediate feedback and resources to enhance understanding of phishing indicators. Through regular simulations, employees develop a keen eye for phishing red flags, bolstering their ability to discern and mitigate potential threats.

**Real-Life Impact and Case Studies:** Real-world case studies demonstrate the tangible benefits of phishing simulation adoption. Companies that customized simulations witnessed a marked decrease in successful phishing attempts. Employees became adept at identifying fraudulent emails, significantly reducing security breaches and safeguarding sensitive data.

**Sustaining Vigilance and Continuous Improvement:** The adaptability of phishing attacks necessitates continuous evolution in simulation tactics. Regular updates and refinements ensure alignment with evolving phishing techniques, fostering sustained vigilance among employees. This ongoing enhancement equips them to counter emerging threats effectively, contributing to the establishment of a resilient security posture within organizations.

## CONCLUSION

In navigating the ever-evolving digital landscape rife with cyber threats, particularly the pervasive menace of phishing attacks, organizations find themselves at a critical juncture. The imperative to fortify defenses against these sophisticated assaults, adept at exploiting human vulnerabilities, stands as an urgent priority in safeguarding sensitive data and operational integrity.

Phishing simulation emerges not merely as a reactive measure but as a proactive cornerstone in the arsenal against cyber threats. Its multifaceted impact extends beyond assessment, evolving into a transformative educational tool. By fostering a culture of

heightened vigilance and awareness among employees, it empowers them to recognize, resist, and mitigate the risks posed by phishing attacks.

The necessity for robust defenses within organizations becomes more pronounced as cybercriminals continually refine their tactics. The implementation of phishing simulation represents a strategic investment, enabling companies to stay ahead in the cyber defense game. These simulations serve as invaluable training grounds, shaping a workforce capable of discerning the subtle nuances of phishing attempts.

Real-world evidence reinforces the efficacy of phishing simulation, showcasing tangible reductions in successful phishing attempts and subsequent security breaches. Employees, armed with enhanced knowledge and experience from simulations, serve as active defenders, significantly bolstering the cybersecurity posture of their organizations.

Sustaining this vigilance necessitates a commitment to continuous improvement. Regular updates and adaptations in simulation tactics ensure alignment with evolving phishing methodologies, ensuring employees remain equipped to counter emerging threats effectively. This constant evolution lays the foundation for a resilient security infrastructure capable of withstanding the dynamic nature of cyber threats.

In conclusion, phishing simulation transcends its role as a mere preparatory exercise; it becomes a catalyst for cultivating a proactive cybersecurity culture. It empowers organizations to proactively combat the insidious nature of phishing attacks, fostering a workforce capable of defending against evolving cyber threats and navigating the digital landscape with confidence and resilience.

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## RUSSIAN-TURKISH RELATIONS, STRATEGIES, SECURITY-RELATED PERCEPTIONS, CHALLENGES FACING GEORGIA

Kakha Putkaradze,<sup>1</sup> Lieutenant Colonel Nikholoz Kachidze,<sup>2</sup>  
Lieutenant Colonel Ioseb Turashvili<sup>3</sup>

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### ABSTRACT

The study "Russian-Turkish relations, strategies, security-related perceptions, challenges facing Georgia" discusses the important aspects of the relationship between the two countries. The research focuses on the factors and circumstances that influence the relations between the two countries. The study highlights the economic, political, energy and security cooperation between the two countries. By using mutual cooperation on their common vision to increase the degree of political autonomy and lead a more effective foreign policy course. The research discusses Russian-Turkish geopolitical interests, as well as security-related challenges. Within the framework of the study, an important emphasis is placed on what specific factors determine the desire of the two countries to deepen the existing relations and how it will affect the security environment of Georgia. Within the framework of the study, the impact and consequences of the Russia-Ukraine war on the issues of the relationship between the two countries are also analyzed.

**Key words:** Energy security, geopolitics, strategy, economy, cooperation, war.

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<sup>1</sup> Associate Professor of Defence and Security Program, LEPL - David Aghmashenebeli National Defence Academy of Georgia, Doctor of Social Science, <https://orcid.org/0000-0001-9222-0673>

<sup>2</sup> head of the Baccalaureate, LEPL - David Aghmashenebeli National Defence Academy of Georgia, Caucasus International, University of social sciences Faculty of Sciences Political science doctoral education program, <https://orcid.org/0009-0004-3076-9678>

<sup>3</sup> Head of Management Program of Baccalaureate, LEPL - David Aghmashenebeli National Defence Academy of Georgia, Caucasus International University of social sciences Faculty of Sciences Political science doctoral education program, <https://ORCID:0009-0004-2891-7547>

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## INTRODUCTION

Russian-Turkish relations at the modern stage are characterized by a multi-vector direction. The two powerful countries of the region occupy an important place in the region and the world with their territorial, human, natural, economic, political, military, geographical resources. From this point of view, the issues of the relationship between the two countries are interesting, especially in the aspect when both states are geographically represented in one geopolitical space and both countries were historically the main competitors of each other for dominance in the region. Against the backdrop of Russia's military intervention in Ukraine, the sanctions imposed on Russia by the West, and the ongoing military, financial, logistical, and political support to Ukraine, Russian-Turkish cooperation deserves attention. This is interesting to the extent that, on the one hand, Turkey is a member of the North Atlantic Alliance, to which it has certain obligations and responsibilities, and on the other hand, it does not join the sanctions imposed against Russia, and continues and deepens cooperation with it in the political, economic, energy, and security fields. Turkey does not refuse to support Ukraine either.<sup>4</sup> In order to better explain the above-mentioned mutual understanding, it is appropriate to briefly review the historical and geopolitical excursion, which at the present stage has a significant impact on the issues of mutual cooperation and confrontation between these two countries.

## MAIN PART

### Historical aspects

1453 The capture of Constantinople by the Ottomans was followed by the destruction of the ancient Roman-Greek civilization in the eastern region, which laid the foundation for the geopolitical and geo-economics goals of the Ottomans and later the Turks in the region.<sup>5</sup> After the fall of Constantinople, Turkey expanded its political influence and territorial borders in the direction of Eastern Europe, the Balkans, the Caucasus, the Middle East, Egypt and North Africa as a result of wars of conquest. In parallel with the military expansion of Turkey, a new state is being formed in the north, in the form of the Principality of Moscow. Moscow Russia emerged as a law-abiding state within Kievan Russia, embracing and preserving Eastern European and Byzantine culture. At the same time, it was influenced by Mongol management styles and imperial thinking. The formation of two dominant powers in the region naturally led to a confrontation between these two empires carrying elements of civilization, which was manifested in the Russian-Ottoman wars. Initially, the interests of these countries intersected in the issue of the Balkans and Poland, which in 1667 followed by the signing of the Andrusov

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<sup>4</sup> Z. Tziarras, , "The Ukraine War and Turkey as a "Third Pole " in a New International Order." POLICY BRIEF. 2022 y.

<sup>5</sup> U. UZER, "IDENTITY AND TURKISH FOREIGN POLICY The Kemalist Influence in Cyprus and the Caucasus, New York, ." *International Journal of Middle East Studies* 17, 2011 y.

Treaty between Russia and Poland,<sup>6</sup> by which both countries undertook the inadmissibility of opening a separate second front for each other in case of war with Ottomans. In later years, Russian-Turkish geopolitical interests intersected in the Caucasus, the Black Sea, the Middle East, the Balkans, Eastern Europe, and at the modern stage, the issue of Central Asia was also added to this. Accordingly, the expansion of the influence of one state would automatically lead to the exit of another state from a specific geopolitical space, which, of course, did not happen without war. The result of this was and is that since the 16th century, the two countries have waged 14 full-scale wars against each other, where, with the exception of one exception (the Crimean War of 1853-1856), almost all cases ended with the victory of the Russians.<sup>7</sup> This fact has found an important reflection in the political and public mood of modern Turkey, which is expressed by the existence of some kind of fears and complexes with Russia.

Despite the geopolitical conflict and struggle for spheres of influence, these countries share many common civilizational elements. Scientists working in Russia are dominated by the opinion about the dualistic identity of Russia. In particular, the civilizational identity of Russia is determined by the belonging of its ethno-cultural part to the eastern branch of the European Christian civilization. At the same time, the geopolitical identity of Russia is determined by its location in the Eurasian geographical space on the cultural-political union of peoples of Slavic, Finnish, Hungarian and Turkish origin, that is, from the point of view of civilization, Russia is Europe, and from the geopolitical point of view - Eurasia.<sup>8</sup> It is also worth noting the fact that Russia historically achieved the greatest success when these two elements were harmoniously combined. The loss of any element is harmful for Russia, because without the European cultural tradition, Russia will not be attractive for its inner East, and without the Eurasian geopolitical potential, it will be uninteresting for Europe". „Therefore, historically, Russia has always tried to establish the status of a European state from a civilizational point of view, whose interests would be mainly directed towards the East, where it would spread European ideas, and in relations with the West, from a geopolitical point of view, Russia should be a Eurasian state, the special type of statehood of which was determined by the specific nature of its geopolitical tasks".<sup>9</sup>

After the end of the Cold War, geopolitical ideologies developed in Russia, on which, according to the assessment of the political and scientific elites, the modern Russian state structure should be based, according to which Russian political directions should be formed.

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<sup>6</sup> Editor S. Kapanadze, Chief scientific editor of the Turkish publication. *Turkish foreign policy 1990-2008 years*, . 38: Tbilisi State University. 2013 y.

<sup>7</sup> Ibid. S. Editor Kapanadze, 2013. .

<sup>8</sup> E. Urushadze, *Russian foreign policy thinking in the post-Soviet period*, BTCC - Policy Research Group,. Tbilisi: BTCC - Policy Research Group, 2006 y.

<sup>9</sup> Ibid. E.Urushadze, 2006 y.

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## Russia's Case

Proponents of Western ideologies talked about uniting and merging Russia with Western structures. Since Russia was historically considered to be a state carrying Western culture and thought.

At the same time, they rejected the ideas about the special messianic mission of Russia. The famous Russian scientist and political scientist Igor Maksimevich shares the same opinion. According to his assessment, in the modern world, where the processes of interstate integration and economic rapprochement are strengthened, it is important for Russia to define its civilizational space, which historically was a constituent part of the common European civilization. For the second group, common Slavic ethnos is the pillar of Russian policy formation. The main idea of this idea lies in the creation of a new Russia, a new Russian civilization, which will unite the peoples of the Slavic ethnos. One of the representatives of the Russian State Council, Sergey Baburin, noted that the collapse of the USSR contributed to the division of the Slavic ethnos in the allied republics. Russia is the heir of Eastern-Byzantine and Hellenistic civilization, and in order for Russia to preserve its national identity, it is necessary to combine the best features of the USSR and the Russian Empire in the new Russia. First of all, the countries inhabited by the Slavic ethnic groups, such as Russia, Ukraine, Belarus and Northern Kazakhstan, should join this union.<sup>10</sup> Defenders of the Eurasian idea emphasize the geographical location of Russia. The Eurasian idea is based on the British scientist Sir Halford Mackinder's theory. The scientist talks about the world's "Heartland", the "Axis of History/Earth", the island of the world. According to the supporters of the Eurasian idea, Russia is the heart/axis of the world. Controlling this area allows Russia to dictate its own agenda to the rest of the world. This ideological line has many supporters in the Russian political and national security structures. Alexander Dugin, a representative of the radical wing of the Eurasian idea, focuses on the need to restore Russia's strength, the expediency of merging Kazakhstan, Ukraine, Belarus and Moldova with Russia, the leading role of Russia in Latin America and the weakening of US influence there, and the liberation of the European Union from US influence.<sup>11</sup> According to some scientists, the modern Russian government is partly a political group carrying centrist ideology. In some cases, it combines the moods of the Eurasian vision. The carriers of this idea emphasize the leading role of Russia in the post-Soviet space and the importance of non-confrontational relations with the West. According to their assessment, Russian policy should be balanced with the West, but at the same time attention should also be focused on the need to strengthen Russian positions in the Eastern space.

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<sup>10</sup> Ibid.

<sup>11</sup> J., Mankoff. *Russian Foreign Policy, The Return of Great Power Politics, A Council on Foreign Relations Book*, . Lanham • Boulder • New York • Toronto • Plymouth, UK: ROWMAN & LITTLEFIELD PUBLISHERS, INC, 2009 y.



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According to them, Russia's productive relations with the West are necessary for Russia's economic future, but at the same time, taking into account its territorial location, Moscow cannot ignore its own leading role in this region. Russia should never find itself in the position of having to choose between its neighbors in the West, the East and the South.<sup>12</sup>

Along with the end of the Cold War, the collapse of the communist camp and the USSR led to the decline of Russia's military-political and economic power. In the 1990s, Russia was engulfed by an economic crisis, which led to the spread of the political and economic interests of Western countries in the former allied republics and Eastern European states. The mentioned situation created a mood in the political circles of Russia, according to which the West embraced an undesirable economic policy on Russia. "Wrong economic programs led to a sharp decline of the Russian economy and an increase in mass poverty. From a political point of view, the West took advantage of Russia's temporary weakness and extended its political influence to those geographical areas, which were considered by the Russian ruling elites to be the sphere of special, privileged interests.<sup>13</sup> After Putin came to power, a geopolitical vision was formed, according to which Russia is the carrier of Eurasian civilization. Its confrontation with the West stems from this "special identity" and geopolitical location. This does not exclude issues of Russia's cooperation with Western countries, moreover, in the early 2000s, emphasis was placed on strengthening partnership, equal, non-confrontational relations with the West, where Russia would be represented as an equal partner and its political, economic and security interests in the region would be recognized.<sup>14</sup>

***The geopolitical interests of modern Russia are based on the following issues:***

1) Formation of a multipolar world system, where Russia will be represented as one of the world's global powers, and in the region it will be a geopolitical and geo-economic center; 2) Diversification of spheres of energy and economic influence, which will give the Russian economy the opportunity for development and assimilation of new technologies; 3) The spread and strengthening of Russia's dominance in the post-Soviet space, which will be represented by the existence of a unified position in common economic, political, and security issues; 4) Gaining control over energy resources and transit routes. Along with the improvement of the economic situation, the increase in the dependence of Western and other regional countries on Russian energy resources will be an important factor in the expansion of Russian political influence; 5) Ensuring the suspension of Western influence in the East; 6) Inciting anti-

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<sup>12</sup> Luke March, "Nationalism,." In *ROUTLEDGE HANDBOOK OF RUSSIAN FOREIGN POLICY*, by Edited by Andrei P. Tsygankov, New York: Taylor and Francis group, Routledge 80-98, 2018 y.

<sup>13</sup> John Berryman, "Geopolitics and Russian foreign policy." In *HANDBOOK OF RUSSIAN FOREIGN POLICY*, by Edited by Andrei P. Tsygankov, New York.: Taylor and Francis group, ROUTLEDGE, 60-79, 2018 y .

<sup>14</sup> Kakha Putkaradze, The role of special services and military elites in the formation process of Russian politics (theoretical and practical analysis 2022y .



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American sentiments in EU and NATO member states. The entry of the USA into Iraq (2003), the revolutions in Georgia, Ukraine and Kyrgyzstan (2003, 2004 and 2005), the accession of Eastern European countries to NATO, the processes developed in Yugoslavia and a number of other issues contributed to the formation of attitudes among the Russian political elite about the deliberate weakening of the state by the West.. This reflects the spread of Western political influence in "privileged zones" while neglecting Russian security interests." According to Moscow, the West does not need a strong Russia, but a Russia that guides their political course, which at the same time will be an exporter of ready-made natural resources and a state dependent on Western products. Considering the above, high-ranking military officials supported the introduction of the so-called "red lines" by Russia with the West. This was reflected in the beginning of the Russian-Ukrainian war and the subsequent processes. Under the leadership of the former Deputy Chairman of the Security Council, Yuriy Baluevsky, the military proposed a military doctrine focusing on conventional military threats from the West and other state actors. In the view of the Russian political elites, Russia's insecurity was historically caused by its geopolitical situation, which was manifested by the insecurity of the state border and the constant influence of the West on Russia's peripheries.<sup>15</sup>

In the context of Russian foreign policy, the issues of Russian-Turkish cooperation are noteworthy. Against the backdrop of the Russia-Ukraine war, Russia's geopolitical goals in relation to Turkey are interesting when Turkey is expanding its economic, political and military ties with both opposing sides. In the context of the war, Russia's interests are characterized by a complex multi-sectoral strategy. It aims to create conditions that will allow Moscow to continue the war until the enemy is completely exhausted. Moscow realized that the military plan in February-May could not suppress the will of Ukraine and bring a pro-Russian government to Ukraine. Therefore, the political tactics have also changed, the main goal of which is not to achieve a quick victory over Ukraine, but to stimulate favorable attitudes of Russia in Europe by prolonging the war. It will contribute to the exhaustion of Western society, political and financial elites due to the expected economic damage. In order for Russia to convince the West to engage in negotiations, it must show that it is not losing the war in Ukraine and can drag out the war process for years. Russia is trying to find alternative sources, markets in the world in order to somehow balance the geopolitical and geoeconomic challenges facing it. Against the backdrop of international sanctions, Turkey is an important opportunity for Russia. In cooperation with Turkey, in the near term, Russia wants to mitigate the damage caused by economic sanctions imposed by the West, diversify its export products and balance the consequences of the loss of Western technologies by tapping alternative markets. This means that Russia will have to find strategic partners who will agree to establish

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<sup>15</sup> Ibid.

alternative transport routes. This will replace the export oriented to the West, and promote the development of the country's industrial and military technologies. Russia's goal is to strengthen new energy and economic platforms to promote Russia's involvement in new regional and international formats. In other words, Russia should create a kind of anti-Western center that will help Moscow compensate for the losses arising from Western sanctions and minimize the sanctions-related risks in the country's economy. Accordingly, Russia aims to deepen relations with countries that show the desire to pursue an independent foreign policy course and see the possibility of increasing the role of their countries in the post-war multipolar world order. Russian-Turkish cooperation in the economic, energy, and security sectors is likely to be explained by the desire to stir up anti-American and anti-Western sentiments in Turkey and bring down disagreements among NATO member states. By offering Turkey regional cooperation platforms, Russia is trying to stimulate the formation of the mood of the Turkish political elite regarding the growth of Turkey's role in the post-war world order. Within the framework of relations with Turkey, Russia is trying to ensure the expulsion of the West from the region and strengthening its dominant position. On the other hand, Russia actively cooperates with Iran in order to balance Turkish influence and actively discusses the issue of Iran's involvement in the proposed platforms. With Russia's separate concessions to Turkey, growing ties in the energy, economic, and security spheres, Russia is forming a soft power tool that will give it the opportunity to influence Turkey at the right time. Russia will try to oppose Turkish and Western geopolitical interests more. Turkey's goal of becoming an energy hub is categorically unacceptable for Russia. Russia is trying not to allow, bypassing it, the supply of natural resources in Central Asia and the Caspian Sea basin to Europe. As a result of Russia's efforts, the Nabucco strategic project also failed. Russia is interested in Turkey being represented as a transit state, and any format of cooperation where regional countries will be represented must necessarily involve Russia as the main decision-making state.<sup>16</sup>

Russian and Turkish interests align due to a shared sense of insecurity. Russia does not have the kind of natural barriers that exposed its vulnerability in the First and Second World Wars - to military operations conducted by European powers along Russia's borders. Similarly, due to its geographical insecurity, Turkey was formed by the so-called "Sevres syndrome", according to which Turkey is surrounded by hostile countries. They are trying to use Turkey's weaknesses and break this country. If the West is the enemy for Russia, the Kurds supported by Western policies in northern Syria and Iraq are the enemy for the Turks.

Turkey is an important economic market and alternative transit corridor for Russia. Turkey has become a necessary component of the Russian gas transit network. The Southern,

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<sup>16</sup> Sinem Adar, *Perceptions in Turkey about the War in Ukraine. Implications for the Future of EU-Turkey Relations*. SWP Comment, German Institute for international and security affairs, 2022 y.

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aka Turkish Stream, is a highlight of mutual cooperation between the two countries in the energy sector. It aimed to export natural resources through Turkey to the Balkans and then to Europe, which would further increase the country's dependence on Russia. Of the 31.5 billion cubic meters/year of gas exported annually by Turkish Stream, half was to be consumed by Turkey and half to be sent to the EU. The project of the Russian state company Rosatom, regarding the construction of the first nuclear power plant in Turkey, is also important.

Parallel to Russia's invasion of Ukraine, the Russian-Turkish presidential meetings clearly showed certain changes in Russia's foreign policy tactics. Moscow views Turkey as an important transit partner. In the process of confrontation with the West, according to Moscow, Turkey can significantly contribute to strengthening its position in the region. Ankara, in exchange for proper support for Russia, received some kind of concessions (eg the issue of Karabakh). The issue of the South Caucasus is also important for Russia. It is the subject of geopolitical conflict between Russia, Turkey and the USA. According to the Russian view, Washington's interest in this region is based on the idea of energy pluralism, that is, finding alternative ways to supply oil and gas to Europe. It will help to prevent the growth of influence of Tehran and Moscow in the region. From this point of view, Turkey's individual actions in the Caucasus are perceived by Russia as part of the West's attempt to expand its regional influence. The US and the European Union support trilateral cooperation between Turkey, Azerbaijan and Georgia. According to some scientists, the US is focused on "promoting pluralist geopolitics and ensuring the supply of Caspian oil and gas to Europe." According to Russian elites, this is aimed at weakening Russia's military and political positions in the region. Accordingly, Russian-Turkish cooperation, from the Russian perspective, is aimed at preventing the further deepening of Turkish-Western relations and expelling the West from the region.<sup>17</sup> As a counterweight to this, Russia is trying to create certain platforms with the involvement of regional countries (for example, the 3+3 cooperation format in the Caucasus) - based on principles based on common profit. Russia's offer of Russia as an alternative to the West for Turkey is largely due to the goals of preventing the expansion of Western influence.

Considering the above-mentioned factors, we can formulate the long-term goals of Russia in the format of cooperation with Turkey as follows:

- 1) based on the economic and energy interests of Russia - diversify existing markets and support Russian exports;
- 2) to increase Turkey's dependence on Russia by strengthening energy and economic ties;
- 3) to create a tool of soft power by deepening economic and energy ties;
- 4) to introduce discord and cause a crack in Turkish-Western relations;
- 5) distance the West from the region and expel it if possible;
- 6) preventing the implementation of alternative energy projects bypassing Russia by offering regional platforms in the Caucasus;
- 7)

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<sup>17</sup> D. Pipinashvili, *South Caucasus conflicts and regional stability problems*, . Tbilisi, 2009 y.

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inadmissibility of the presence of the US and Western military components in the region; 8) preventing the expansion of the influence of Western states in the Black Sea Basin; 9) mitigation of economic and technological risks arising from sanctions imposed by the West; 10) search for alternative markets; 11) Formation of geopolitical centers of anti-Western gravity.

### **Turkey's Case**

The collapse of the USSR created a new geopolitical reality and a different security architecture in the world. It gave important opportunities to Turkey, which was modestly represented in the region before. This was reflected in the geographical areas on which Turkey historically had certain claims. The ideological, political, economic and security vacuum created in the former communist camp as a result of the end of the Cold War gave Turkey a chance to intervene with a new force in the ongoing political and economic processes in the post-Soviet countries. From the same period, the strengthening of Turkey's ties with the former allied republics and countries of the post-Soviet camp began. It was expressed by strengthening joint economic, energy, political, military and cultural contacts.<sup>18</sup> The collapse of the USSR removed the existential threat posed by Soviet Russia during the Cold War to Turkey. At the time, this factor also influenced the decision on Turkey's accession to NATO. Turkey's alleged involvement in the Russo-Chechen wars, which was manifested in the training of Chechen fighters, logistical, financial assistance and sharing of intelligence information, significantly strained the relations between the two countries. The facts of the participation of the Turkish ultra-right radical organization - "Grey Wolves" in the Karabakh war and their attempt at a military political coup in Azerbaijan, stirring up Turanian and neo-Ottoman sentiments in a certain part of the military and political circles, strengthened the negative sentiments towards Turkey among the Russian political elite. In response, a large Kurdish political congress was held in Moscow in April 1996 with the support of Russia, in which the political leader of the Turkish Kurdistan Workers' Party, Abdullah Öcalan, participated. Finally, the agreement reached on Turkey's side to end support for Chechen separatism and Russia's support for Kurdish separatism laid the foundation for a new stage of relations between these two countries. This was expressed in the 2004 speech of the President of Russia, Vladimir Putin. A visit to Turkey. In the format of bilateral relations, the possibility of convergence of the interests of the two countries in the economic, energy, political, and security sectors was highlighted. Nevertheless, there were and will be a number of issues between the two countries where they have different positions. The affairs of Syria, Libya, the South Caucasus, Egypt, Cyprus, and Ukraine are a clear confirmation of this. 2016 After the

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<sup>18</sup> K. Putkaradze, Preventing of religious conflict in the new democratic countries (Case study of Georgian Muslims), 2021 y.

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failed military coup, Turkey, through President Erdogan and his administration, set a new political course and orientation. It meant the formation of an independent foreign policy course corresponding to national interests. Despite the different positions, the existing relations between these countries were significantly strengthened, which was manifested in cooperation in energy and economic projects.

Russia's military intervention in Ukraine (February 24, 2022) set Turkey two important tasks: a) *maintaining global and regional positions, which Turkey managed to consolidate and strengthen after 2016, and b) strengthening influence and consolidating earlier achievements - to ensure further expansion.*

The war in Ukraine has threatened Turkey's pragmatic multipolar approach that underpins its foreign policy. Turkey, as a member of NATO, has certain political obligations towards the organization and its member states. Despite this, he does not want to participate in the sanctions against Russia. It is partially explained by economic reasons. Russia is an important trade partner for Turkey. As of 2021, the trade turnover between the two countries amounted to 32.5 billion dollars. After the war, Russian investments in Turkey increased. The percentage of Russian citizens in Turkey's tourism industry is significant. As of 2019, the number of visitors from Russia to Turkey reached 7 million people, which is almost 17% of Turkey's tourism potential.<sup>19</sup> Russia is also an important energy partner for Turkey. In the Turkish industry, the volume of Russian natural gas occupies the first place in the country. The mentioned factors significantly led to an increase in Turkey's dependence on Russia in the energy and economic spheres, which, if appropriate, creates an opportunity for Russia to use soft power. The war in Ukraine is a kind of opportunity for Turkey. It allows Turkish interest groups to occupy the places vacated by Western companies in Russia and attract more investments to their country. With the Russo-Ukrainian war, Turkey sees an opportunity to become the region's energy hub and Europe's main transit hub. Despite the sanctions imposed on Russia, some Western countries continue to purchase Russian gas through Turkey. Turkey offers Europe its transit and logistics capabilities and puts on the agenda the possibility of realizing the long-discussed underwater gas pipeline between Israel and Turkey (the impact of the current Israeli-Hamas military conflict on this issue is a subject of separate analysis). Amid the Turkish-Western standoff, Ankara sees the war as an opportunity for the West to lift sanctions on its defense industrial complexes and accept Turkey as an equal partner. This was confirmed by the differing positions of the Turkish side on the process of NATO expansion, Sweden and Finland, and NATO membership.

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<sup>19</sup> S. Akgundogdu, Trissel Collin, "Turkey's Growing Ukrainian and Russian Communities." The Washington institute for Near east Policy, 2023 y.

Despite bilateral cooperation, the existing relations between Moscow and Ankara cannot be considered as strategic and long-term cooperation, which is determined by the fundamentally different interests and historical experience between these two countries. The relations between the two countries actually reflect an example of classical situational cooperation. Despite cooperation with Russia, Ankara does not cut military ties with Ukraine, which is explained by the following circumstances:

*A) Turkey, as a member of NATO and a state willing to integrate into Western structures, cannot stand aside in the Ukraine conflict; B) Ukraine, on the northern flank of Turkey, has always represented a buffer state between it and Russia. If the borders are broken, a strengthened Russian state will approach from the north, which is not part of Turkey's long-term strategic plans; C) Ukraine is an important economic market for Turkey, where, in case of its dominance, it will significantly contribute to the expansion of the export of Turkish products; D) Russia's increased presence in Ukraine, especially along the southern coastline, further strengthens Turkey's strategic vulnerability on the Black Sea and activates Cold War-era threat perceptions.*

Along with supporting Ukraine, Ankara is trying not to openly confront Russia, as an open confrontation with the Kremlin could lead to retaliatory actions in Syria. Moscow could stimulate a new wave of migration from Idlib. He also sought to facilitate the activation of pro-Kurdish movements, which represent an existential threat to Turkey.

After the failed coup of 2016, Turkey is trying to pursue an independent foreign policy, which was facilitated by two important circumstances: a) the lack of solidarity from the West during the coup attempt of 2016 and the suspicions of the US about their alleged involvement in the military coup attempt; b) US partnership, financial, military and logistical support to the Kurdish Democratic Union Workers' Party.<sup>20</sup>

The conflict in Ukraine allows Turkey to increase the country's geopolitical importance and strengthen its existing political power. A situation is created when Turkey has the opportunity to put pressure on the West by dealing with certain conflict issues. This also applies to issues in the fields of defense and security. Turkey has said it is time to lift sanctions on its defense industry. Speaking to the press after an emergency meeting of NATO defense ministers in mid-March, Turkish Defense Minister Hulusi Akar also noted that Turkey had become a NATO member, was fully committed to NATO, and expected that NATO allies would also be committed to Turkey and its efforts to counter "terrorist organizations such as "PKK/YPG, ISIS and FETO".

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<sup>20</sup> Myles B Caggins, "Peshmerga Reforms: Navigating Challenges, Forging Unity," Foreign Policy Research Institute, October 31. Accessed November, <https://www.fpri.org/article/2023/10/peshmerga-reforms-navigating-challenges-forging-unity/>. 2023 y.



Since the beginning of March, pro-Western sentiments have become noticeable in Ankara's narrative. At a press conference held with the President of Kosovo, Erdogan expressed his support for the expansion of NATO and the European Union and expressed his readiness to support Ukraine. Ultimately, Ankara views this situation as an opportunity to support Turkey's EU accession process. It is no coincidence that at the same press conference, Erdogan asked the EU to show "the same sensitivity" to Turkey's membership status.

Turkey's adaptation of the role of conciliator and mediator in the Russia-Ukraine conflict, systematic invitations of Turkish leaders to Western capitals, are perceived as evidence of Turkey's growing influence. It became possible to achieve this by pursuing an autonomous foreign policy course. Pro-government experts focus on Turkey's growing importance in global processes, namely: a) *"Ankara has succeeded in diplomacy." It is confirmed by the bilateral visits of Israel, Greece, the USA and Germany to Turkey, holding a diplomatic forum in Antalya, with the participation of Western and non-Western leaders. Turkey emerged as the only mediating country between Ukraine and Russia;* b) *Erdogan's criticism of the West. It was connected with the lack of a unified position of the West regarding the annexation of Crimea by Russia;* c) *Structural weaknesses of post-World War II institutions as evidence. The merit of Erdogan's call is to start public discussions on reforming the UN system.*

The goal of Turkey's ruling elites in the Ukraine war and cooperation with Russia is: a) to support economic activity; b) strengthening cooperation with the US and the European Union and influencing them to reach individual concessions; c) strengthening of close political, economic, diplomatic and security ties with the countries of the South Caucasus and Central Asia; d) the final solution of the Kurdish question; e) expansion of influence in the Middle East; f) turning into an energy hub and a regional country; g) strengthening cooperation with the countries of the region; h) pursuing an independent foreign and security policy tailored to national interests; i) strengthening the country's energy, economic and political resources by strengthening ties with Russia, deepening relations with Russia - in exchange for certain concessions from Russia; j) Strengthening the influence of Turkey in the new geopolitical space created after the war in Ukraine.

Considering the above-mentioned factors, we can assume that Russian-Turkish cooperation is conditioned by mutual interests, namely: 1. *Cooperation in the energy field;* 2. *The desire of the two countries to adopt an independent foreign policy course and to contribute to the distancing of the West in the current events in the region;* 3. *The personal relations between Putin and Erdogan and the authoritarian style of state management;* 4. *Recognizing each other's security interests, taking them into account and implementing a security policy tailored to national interests;* 5) *skeptical attitudes towards the West;* 6)

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*Cooperation in the economic sector.* The cooperation between the two countries reflects the situation when, due to the situation, a partial alignment of interests in political and security matters became possible. From an economic point of view, there is complementarianism, which implies the deepening of economic relations despite geopolitical conflicts. The ruling elites of Russia and Turkey are of the opinion that it is possible to establish red lines between the two countries on the basis of mutual cooperation, to respect the security interests of both sides, and to deepen future cooperation. A similar approach, based on the recognition of security interests and the perspective of mutually beneficial cooperation, was acceptable to both countries.

The attitudes of the political elites of these states are also important, according to which "Washington equally threatens the interests of Turkey and Russia". The relationship between the two countries is perceived as a kind of opportunity to balance the American influence in the region. According to Turkey, Washington is not interested in Turkey's support for Kurdish separatism, on the other hand, it helps Kurdish paramilitary groups "Peshmerga" and others with military, logistical, political and financial resources.<sup>21</sup> The political elites of the two countries believe that Washington is interested in replacing the political regime in these countries, which will further pursue pro-American interests. Another important issue where the political elites of the two countries consider Washington's positions dangerous is the unilateral actions of America in the region. Turkey believes that America is not interested in establishing Turkey as a strong regional state.

From Turkey's perspective, the real dimension of the country's accession to NATO and the expediency of its accession to the European Union at the current stage are interesting. Turkey's attempt to be recognized by Western countries as part of the Western world is due to its sense of historical insecurity. It was associated with threats from the Soviet Union as well as fears about the West. The feeling of insecurity has deep roots dating back to the nineteenth century. That is why, during the founding of the Republic of Turkey by Kemal Atatürk in 1923, the real reason for the unconditional support of the country's western orientation policy was related to the concept of state security. Turkey's political elite believed that if the new republic was considered part of the West, it would be able to avoid repeating the fate of the Ottoman Empire. In particular, it would have avoided the massive territorial losses suffered by the Ottoman Empire in the late 19th and early 20th centuries. As Atatürk's associate Falih Rifqi Atay said: "We were either going to become Europeans or imperialists, otherwise Europe was going to disintegrate us and turn us into Asian hordes." Relations with the West, whose goal is to integrate Turkey into the European Union at the modern stage, are determined, in

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<sup>21</sup> J. Anotti, T. Clayton, "Turkey (Türkiye): Background and U.S. Relations In Brief .," Breaif, 2023 y.



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addition to economic factors, by the possible threats that may threaten Turkey if it is not a full member of the Western structures.<sup>22</sup>

Despite the disagreements on a number of issues, Turkey and Russia managed to maintain a situational partnership. It became possible thanks to the pragmatic and personalized foreign policy of the two states. The above-mentioned cooperation is a confirmation of the implementation of the independent foreign policy course of the two countries. Turkey's main national interests in the context of the war in Ukraine are focused on maintaining and expanding Ankara's regional and international influence through political, diplomatic and economic intervention in the conflict. Ankara sees the current crisis as a harbinger of global change that will contribute to the establishment of a multipolar world order, which will give Turkey a more active and dignified role in regional and international relations. For Russia, the war in Ukraine is an opportunity to stop the growing influence of the West and to recognize the Russian privileged and security interests on the part of the Western states. In Russia's long-term plans, relations with Turkey (in exchange for a separate compromise) are considered an opportunity to completely distance the West from the region. If it is possible to align common interests with Turkey, the gap between Turkey and the West will increase, and the real chance of a crack in the united position of the West will increase. By instigating the deterioration of Turkish-Western relations, Moscow will try to strengthen its influence in the Caucasus and the Middle East, to gain control over energy and transit resources, as well as to strengthen the military component in the region.

It is difficult to predict how long Russian and Turkish "friendship" will last after the war in Ukraine. Much will depend on what tangible concessions the two countries are willing to make and whether they will be able to reach an agreement on regional issues where there is serious conflict.

Despite bilateral cooperation between Russia and Turkey, there are a number of issues where the interests of these countries differ. For example, the main threat to Moscow in Syria was the strengthening of radical jihadist groups and the disruption of the central government. It would facilitate the export of radical/political Islam and terrorism to Russia and former allied republics. At the same time, the region would lose its last strategic ally. Ankara, for its part, seeks to strengthen both regional interests in the Middle East, as well as deter any attempt at Kurdish self-determination. In 2014, disagreements over the Crimea issue were added to the above-mentioned differences. Although Ankara did not join its Western partners in imposing sanctions against Russia, it did not hesitate to take a clear position on the issue.

There are several fundamental factors behind Turkey's interest in the Caucasus. First, its strong ties to Azerbaijan as a Turkic-speaking country. On December 9, 1991, Ankara

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<sup>22</sup> Hale, William, *Turkish Foreign Policy since 1774, 3rd edition*, London and New York: Routledge, 2013 y.

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recognized Azerbaijan as an independent state. Turkey provided decisive assistance to Karabakh in the second war and in the complete restoration of its territorial integrity. Azerbaijan and Turkey are involved in energy (Baku-Tbilisi-Ceyhan; Baku-Tbilisi-Erzrum; Trans-Anatolian and Trans-Adriatic projects) and infrastructure projects, including the Baku-Akhalkalaki-Tbilisi-Kars railway. Strategic projects are aimed at creating alternative routes for the supply of oil and gas to EU countries and establishing Turkey as a regional power.

The presence of the Caucasian diaspora in Turkey is also a factor to consider. About 10 percent of Turkey's current population is ethnically related to the North and South Caucasus. 3-5 million people of North Caucasian origin live in Turkey, about 3-3 million people are from Azerbaijan and Georgia. Important Caucasian non-governmental organizations are "Kafkas Derne"; "Kafkas Vakf" and "Birle,ik Kafkas Dernekleri Federasyonu". There is also a Chechen organization "Çeçen Dayan, ma Grubu". The Azerbaijani and Georgian diaspora is represented by the Azerbaijani "Dostluk Derne" and "Gürcistan" organizations<sup>23</sup>.

The West supports pluralism in geopolitics and energy, but Turkish elites believe the West is not interested in a stronger Turkey or its Eurasian ambitions. Back in July 2006, the US House of Representatives passed a decision largely due to the support of the Armenian lobby, which was later confirmed by the recognition of the Armenian Genocide by Congress.

### **Georgia's Case**

The issues of Russian-Turkish cooperation are the subject of critical study in Georgia as well. On the one hand, there is Russia, which has temporarily occupied 20% of Georgia's territory, and on the other hand, Turkey - the number one economic and trade partner of Georgia, a strategic ally and a supporter of Georgia's accession to NATO. Accordingly, it is worth noting how the formats of cooperation between these two powerful regional countries will affect the national security environment of Georgia. It is worth noting the fact that both regional powers are trying to strengthen their political power in order to spread their dominance in the South Caucasus. Nevertheless, this does not exclude the issues of bargaining and cooperation between these regional powers. A clear confirmation of this is the second Karabakh war and the offer of the Caucasus 3+3 regional cooperation platform after this war. There are other examples of mutual agreement between Russia and Turkey. Among them are issues related to Syria and the Kurds, energy and economic relations. The common position of these two states regarding the purposeful weakening of Western positions in the region is particularly noteworthy for Georgia. Considering common economic, political and energy

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<sup>23</sup> GÖNÜL TOL,. "Why Is Turkey Silent on Russia's Cooperation with the Kurds? ." War on the Rocks, . Dec 19 . Accessed 2023. <https://warontherocks.com/2017/12/why-is-turkey-silent-on-russias-cooperation-with-the-syrian-kurds/>. 2017 y.

goals, it is important for Georgia not to sacrifice Georgian interests in Russian-Turkish relations in exchange for certain concessions.

*The efforts of the two countries to weaken the positions of the West will have a negative impact on the West's support for Georgia. Accordingly, Georgia will remain without a strong political supporter*

- Along with the weakening of Western positions, Georgia will have to face Russia one-on-one, and on the other hand, be alone with the Turkey-Azerbaijan alliance, which will put the country in a losing position;
- Convergence of Russian-Turkish interests will reduce Georgia's ability to diversify the economic and energy sectors and improve the country's economic situation;
- Depending on the economic conditions, it will be difficult for the country to pursue an export-oriented economic policy;
- The convergence of the interests of the two countries in the Caucasus will create a geopolitical situation for Georgia, where Georgia will be in the arc of the interests of the Russian, Turkish-Azerbaijani and Iranian states;
- Russian-Turkish cooperation does not exclude the implementation of new energy projects bypassing Georgia, with the probable involvement of Azerbaijan, Armenia and Iran, which in the long run will lead to the loss of Georgia's geostrategic importance;
- The issues of convergence of interests between the two countries do not exclude the weakening of Georgia's transit capabilities, the reduction of the cargo turnover of Batumi and Poti sea ports;
- The convergence of Russian-Turkish interests will increase Georgia's economic, political and energy dependence on these countries;
- Reaching an agreement between the two countries will strengthen the possibility of using hybrid or hard force against Georgia;
- The convergence of Russian-Turkish interests activates the military threats facing the country;
- Convergence of Russian-Turkish interests may lead to a change in Turkey's supporting positions towards Georgia in NATO;
- The weakening of the West's position in the Black Sea basin will lead to a decrease in Georgia's access to the existing marine resources, will worsen the security of the maritime space of Georgia, will put regional challenges related to the Black Sea basin on the agenda;
- Taking into account the historical experience, in the recent history of Georgia there are many facts, when the convergence of interests between these two countries led to mass migration of Georgians, the loss of a significant part of the territories of Georgia, and the convergence of interests of a number of states resulted in the loss of Georgia's independence.

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## CONCLUSION

Russian-Turkish relations have always been full of contradictions and geopolitical confrontations throughout the history of the relationship between the two states. The different geopolitical and civilizational differences of the two countries caused and still causes the disagreements between them. It excludes the strategic partnership and cooperation of the two states in the long term. Despite different geopolitical interests, there are also examples of separate cooperation in a number of issues, namely: economic and energy issues, joint energy strategic projects, dissatisfaction of the two countries towards the West, the delay of Turkey's accession to the European Union, the goal of pursuing an independent foreign policy course, the common interests of the two countries regarding the Black Sea Basin Vision - countries that are not part of the Black Sea basin were not represented in the region, precedents for creating buffer zones, discussion of Kurdish-Turkish issues in the Astana format. At the current stage, regional and global processes have contributed to the rapprochement of the two countries, which is largely due to the views of the ruling political elite of the two states in relation to the West. Nevertheless, the mutual cooperation between them resembles situational cooperation. Different civilizational, geopolitical and geoeconomic visions and the correspondingly changing geopolitical and security field increase the possibility of new conflicts between them. At the current stage, the convergence of the interests of the two states with certain regions, including the Caucasus and the Black Sea basin, increases the vulnerability of the countries of the South Caucasus. It can become an important factor contributing to the emergence of new types of risks and challenges.

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## TRANSFORMATIVE LEARNING AND TEACHING

Ketevan Chiabrishvili,<sup>1</sup> Tinatin Kropadze<sup>2</sup>

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### ABSTRACT

During the pandemic, under the conditions of a developing economy and low technological development, the education sector became one of the most vulnerable sectors in Georgia. Due to the situation at hand, both general and higher educational institutions in Georgia faced a serious challenge. The choice was twofold: either the learning process had to stop, or it had to continue in a safe environment. To continue the educational process, by moving to online teaching was for two years the only option.

The goal of our project is to evaluate the achievements, challenges, and outcomes in the transformative educational reality and offer recommendations to interested parties.

According to the research goal, the research objectives are:

1. To study the opinions of the members of the community (administration members, professors, teachers, instructors, junkers) about the positive and negative aspects of teaching and learning management under the new reality;
2. To analyze these opinions;
3. Based on the analysis, to develop a set of recommendations for transformative learning and teaching.

The research is conducted based on desk and field studies.

As a result of the research: a) local and international experiences in the management of transformative education were studied; b) the opinions of the community members were defined regarding transformative learning and teaching; c) a recommended framework for transformative learning and teaching was created, which will be available to all parties interested in educational issues.

**Keywords:** Transformative Learning, Mezirow's Theory, Junker, Study, Challenges.

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<sup>1</sup> Professor of Bachelor's program in Management of LEPL David Aghmashenebeli National Defence Academy of Georgia, Doctor of Economics;

<sup>2</sup> Chief Scientist of the Scientific-Research Center of LEPL - David Aghmashenebeli National Defense Academy of Georgia, an associate professor at BTU of Georgia, PhD in Social Sciences

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## INTRODUCTION

According to United Nations High-Level Summits and Conferences 2022, despite technological provision, the pandemic created a significant gap in the history of the education system, which affected more than 1.6 billion students in over 190 countries on every continent.<sup>3</sup>

In developed countries, e-learning has been ongoing for decades. Accordingly, in such countries, it was much easier to plan and implement regulations regarding the transformation of education due to the pandemic. In Georgia, there was limited experience with distance learning courses in some higher educational institutions. However, the reality turned out to be much more difficult, and as a result, many unforeseen problems arose in the fully remote or hybrid teaching and learning process. These included: lack of technical resources, limited knowledge of how to use these resources, interruptions in access to the internet, the need for professional training, maintaining interest in learning under the new reality, and etc. It was now necessary to establish a unified, consistent, and effective management system, which remains relevant today and is the goal of modern scientific research.

## MAIN PART

The phenomenon of transformation is a topic of interest for a number of disciplines (e.g., interpersonal psychology, consciousness studies, religious studies, etc.), but for several decades, the process of adult learning and education has been considered under the theory of transformative learning.

The theory of transformative learning is a human-made construct to describe the phenomenon, but it is still not perfect. Under the influence of the phenomenon that Jack Mezirow (1923 - September 24, 2014), an American sociologist and Emeritus Professor of Adult and Continuing Education at Teachers College, Columbia University, tried to describe, people change significantly. In Mezirow's original research, women returned to school under the influence of deep social changes to prepare for future employment. He observed how higher education could promote positive social changes. The author used the analytical tools at his disposal, which helped explain the experiences of women, particularly in the critical evaluation of their assumptions, the construction of meaningful dialogues, the attempt to adopt new roles, and the understanding of their motives, etc.

This background is important for understanding how Mezirow described what he meant by the word transformation: it is "learning how we are engaged in our own history and how we go through it again". He focused on the frames of knowledge that we use to interpret our

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<sup>3</sup> Jack Mezirow & Associates. 2000. Learning as Transformation. Critical Perspectives on a Theory in Progress. San Francisco: Jossey Bass, p. 8. <https://www.un.org/en/content/summits2022/>



experiences, to understand the world around us, and to figure out who we are. Mezirow described transformations that occur in the fields of knowledge and that are "more inclusive, different, open, emotionally changing, and expressive." This helps us, as socially responsible, clear-thinking decision-makers, to "better control our lives"

The process of transformation involves integrating the conscious and unconscious parts of our psyche. This is triggered by focusing attention on our dreams and fantasies. A person needs to be able to understand their emotions and engage in creative activities.

The focus of the theory is on how we learn to negotiate and act independently with knowledge of our goals, values, feelings, and the meanings of events, and with their consideration, rather than based on what we have unconditionally and without criticism adopted from others. Mezirow distinguishes learning in childhood from learning in adulthood as follows:

Learning in childhood is formative, as it is created and developed based on trusted sources and socialization.

Learning in adulthood is transformative because adults are more capable of breaking down and seeing changes in their beliefs, feelings, and attitudes.

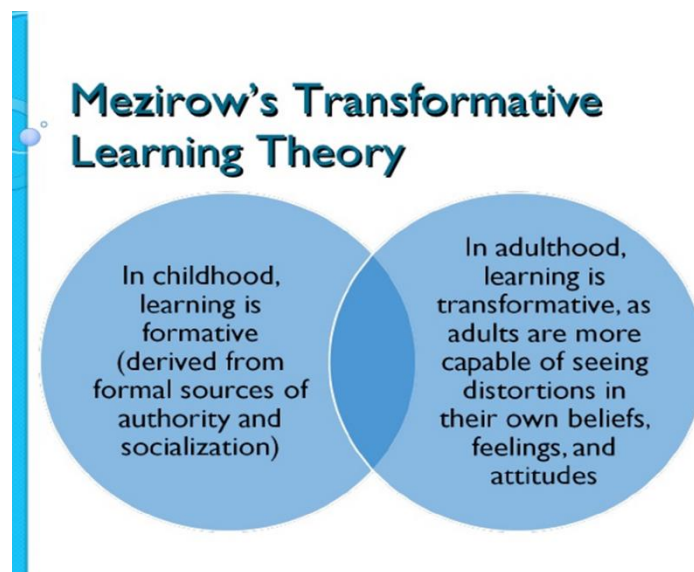


Diagram 1

The analysis conducted by the authors shows that none of the main elements of transformative learning are isolated. Moreover, each supports and strengthens the others, offering a more holistic approach to future research. These elements of learning should not only exist for transformative learning but also highlight a new and less explored element—context.

The main elements of transformative learning:



- 1) **The Role of Critical Reflection** - Describes how any transformative change hinders development and how critical reflection helps a person to reconsider their values or beliefs.
- 2) **The Role of Dialogue** - Transformative teaching can be based on dialogue that arises between the conscious and the unconscious. Because the critically reflective form of internal or external dialogue is identified by modern research, it can be considered a useful way to use the potential of personal transformative learning. The significance of the transformative concept becomes important for the learner through voluntary discourse with others.
- 3) **The Role of Individual Experience** - Mezirow described how we acquire most of our perspectives of meaning through cultural assimilation, where we learn things like what liberal, radical or conservative views represent in our culture. Stereotypes like what it means to be a man or a woman, and so on.
- 4) **Context** - According to Mezirow, contextual culture allows a person to dictate who, what, how, and when they learn. The goal of transformative learning is to encourage adults to reflect and, as a result, reassess the factors that reinforce this contextual culture.

Thus, a person undergoing transformation may encounter disorientation, self-examination, critical assessment of current assumptions, realization that these assumptions may no longer serve them best, exploration of options, attempts at new ideas or roles, and integration of a new perspective. People usually think and act based on what they have consciously or unconsciously absorbed from their surroundings. However, with the right educational resources, transformative learning can start by reinterpreting familiar concepts, exploring different perspectives, and ultimately adopting new approaches to actions and decisions.

Ultimately, Mezirow's transformative learning theory includes the following stages/phases, which are gathered in a ten-step system of a unified approach:

1. The disorienting dilemma;
2. Self-examination;
3. Critical assessment
4. Recognizing and identifying roles;
5. Exploration and testing;
6. Knowledge acquisition;
7. Creating an action plan;
8. Trying out roles;
9. Building competence;
10. Reintegration.

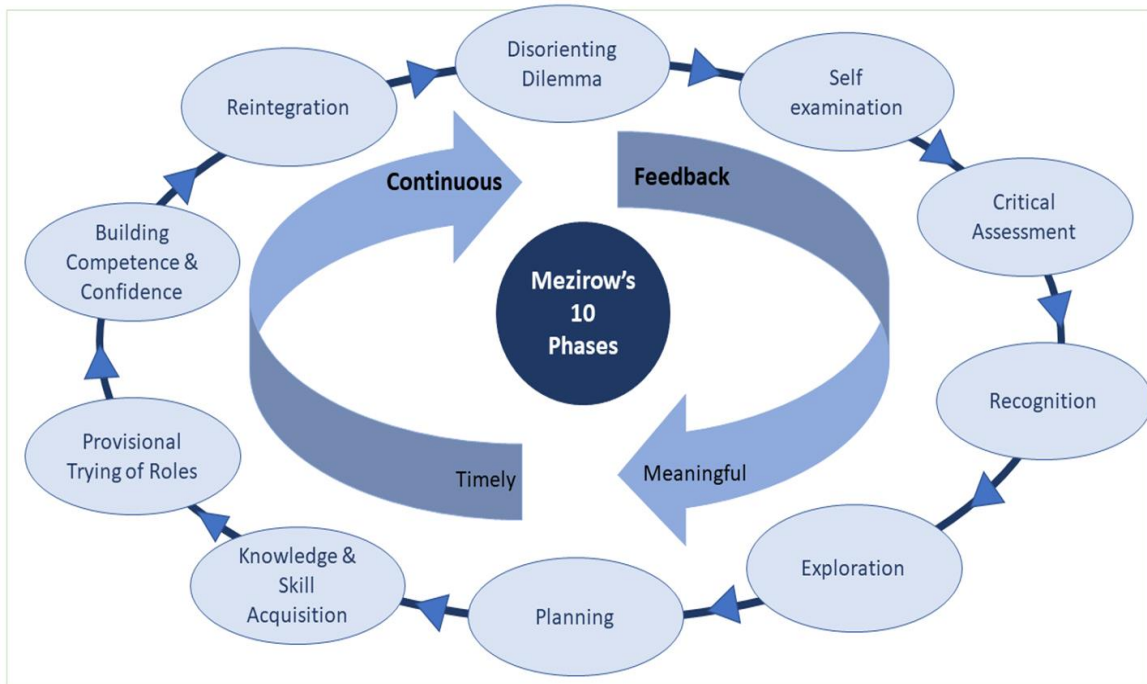


Diagram 2. The 10 Phases of Mezirow's Transformative Theory<sup>4</sup>

## Research Methods

Between September (2022) and December (2023), to accomplish our research goals and objectives, we used the following research methods:

### 1. Desk Research, which included the following steps:

- Reviewing and analyzing the latest local and international scientific literature on transformative learning.
- Developing a questionnaire to study the opinions of a) management, professors, and instructors of the NDA and b) junkers regarding transformative learning and teaching.
- Soliciting an expert opinion on the quality of the questionnaire with a group of colleagues.

### 2. Field Research, which included the following steps:

- Conducting face-to-face interviews with NDA's management, professors, instructors, and junkers to determine existing experiences with transformative learning and teaching.
- Creating a database.
- Analyzing quantitative and qualitative data.

<sup>4</sup> ŞAHİN İZMİRLİ O., KABAKÇI YURDAKUL I., Investigation of Prospective Teachers' Information and Communication Technology Integration Practices in Terms of Transformative Learning Theory, Educational Sciences Theory & Practice, January 2015, p. 2295, DOI: 10.12738/estp.2014.6.2076

## Research Results

- Developing a framework of recommendations for transformative learning and teaching based on the analysis of literature and survey results.
- Sharing the framework of recommendations for transformative learning and teaching with Georgia's universities and all interested parties.

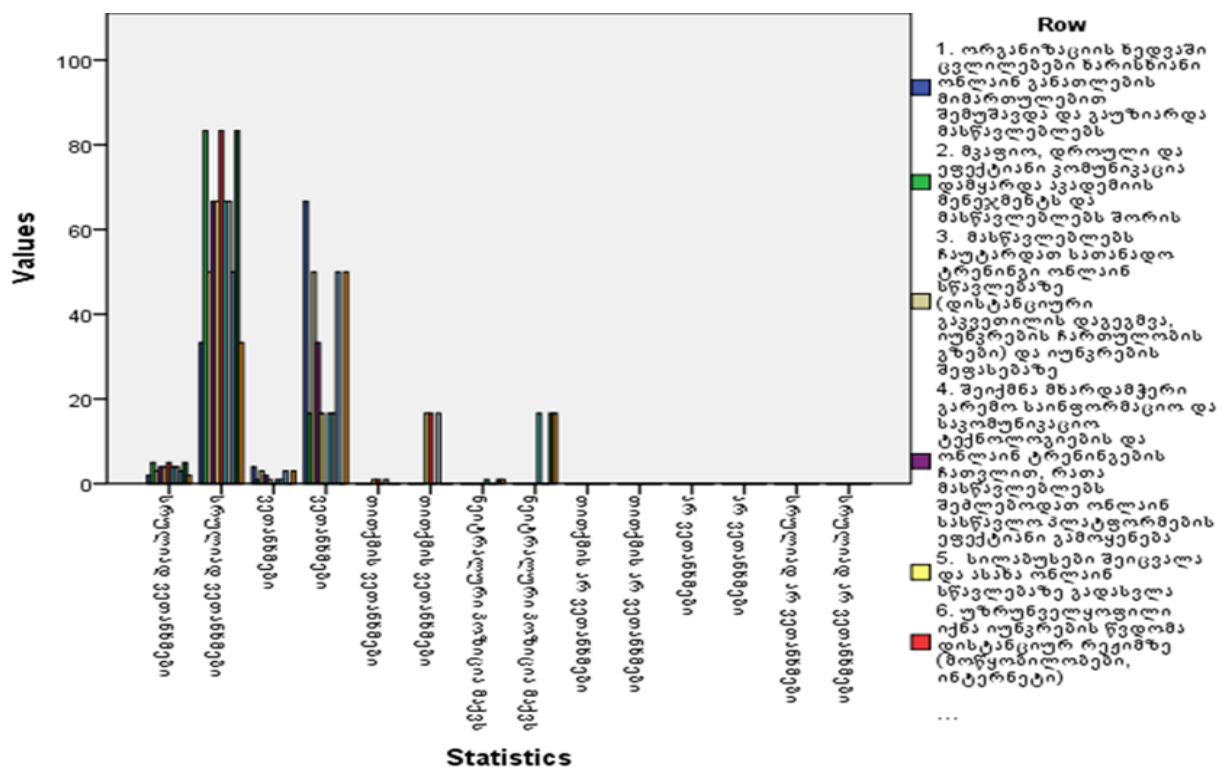
## Empirical Analysis

For the analysis of the challenges and outcomes of managing transformative learning and teaching, a study was conducted at the NDA using quantitative methods—specifically, surveys involving 6 staff members and 101 junkers.

## Staff Research Results

The respondents, 5 were male and 1 was female, aged between 36 and 45. One belongs to the academic staff, while five are administrative staff.

The questionnaire for the staff consisted of three groups of factors (closed questions with Likert scale responses):



- **Factor 1:** Immediate response to disruptions caused by COVID-19 (strategies for responding to university closures).
- **Factor 2:** Analysis of the transition to distance and hybrid teaching methods.
- **Factor 3:** Building resilience and sustainability in the Defense Academy.

Responses to 10 different questions assessed the response to disruptions caused by COVID-19. The strategy for responding to university closures included answers to 11 questions, categorized into 7 responses based on the Likert scale.

The majority of respondents are confident and believe that the academy successfully handled the following issues:

To assess the knowledge gained through distance learning, respondents answered 10 questions. Most of the academy staff believes that the knowledge gained through distance learning is:

- ✓ Reliable (trusted in the teaching-learning process).
- ✓ Updated.
- ✓ Suitable for modern demands.
- ✓ Interdisciplinary (connected to other skills and knowledge in different fields).
- ✓ Social (aligned with social sustainability goals).
- ✓ Adaptable, etc.

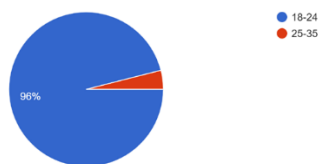
### Junkers' Research Results

101 junkers participated in the research, including 97 aged 18 to 24, and 4 aged 25 to 35. Among the respondents, 89 were male, and 12 were female.

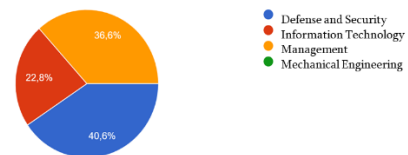
The junkers expressed their opinions on three issues:

- Coping with challenges created by the transition to online learning due to the pandemic.
- Immediate response to disruptions caused by COVID-19 (support for junkers).
- The final outcomes of the academy's activities (measuring the quality of knowledge, quality criteria).

Age  
101 answers



Directions  
101 answers



### CONCLUSION

The research results revealed issues that, if addressed, would help the academy overcome challenges, strengthen resilience, and achieve sustainable development.

Respondents consider the knowledge acquired at the academy to be reliable, modern, adaptable to various realities, and aligned with the country's social sustainability goals. It is also easy to evaluate.

The vast majority of junkers believe that the learning experience gained during the pandemic is helpful, but 28% of them feel that it has not made them study more effectively. This observation gives us more incentive to base transformative education on certain steps so that knowledge becomes more practical, applicable to real-life situations, and usable; creating a sense of resilience at the individual level, within social groups, in society as a whole, and in the economy and national defense sectors. Consistently following the steps of Mezirow's theory in our teaching process will allow us to make the knowledge transfer system more consistent and structured, thereby improving the quality of knowledge acquired by the junkers.

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## GENDER IN POLITICS

Kaltamze Melkadze<sup>1</sup> Nino Okreshidze<sup>2</sup>

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### ABSTRACT

Democracy means to understand the opinion of each person. Nowadays, to defend women's rights and strive for equality are one of the biggest challenges of the modern world. The measurement of democracy is the involvement of women in a decision-making process and the quality of human rights' defense. A little amount of women involvement in political life is equally characteristic of both experienced and relatively young democracies. General elective right won't be able to provide a high level of women representation. Gender stereotypes make negative influence on the functioning of society. Its effectiveness is much more noticeable on post-soviet countries than on western liberal states. Women's participation in politics is low and it should be improved to meet the requirements of international norms and standards of gender equality. Gender inequality hinders the development of individuals or the whole country, also society evolution and helps to create unfavorable environment for men and women. Society finds it difficult to accept the idea of gender equality, as it does not recognize the essence of the problem. The establishment of gender quota will make a significant contribution to ensuring gender equality, improving state mechanism, making decisions and integrating gender mainstreaming organically.

**Keywords** democracy, elective right, gender stereotypes, women involvement, human right defense.

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<sup>1</sup> LEPL Cadets Military Lyceum Mentor Teacher

<sup>2</sup> LEPL Cadets Military Lyceum, Mentor Teacher, Academic Doctor of Philology

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## INTRODUCTION

Democracy means to understand the opinion of each person. Nowadays, to defend women's rights and strive for equality are one of the biggest challenges of the modern world. The measurement of democracy of any country is the involvement of women in a decision-making process and the quality of human rights' defense<sup>3</sup>.

In spite of the fact that 50% of the population is women, they don't take part in making a decision, because they don't have enough access to the authority and political resources. A little amount of women involvement in political life is equally an characteristic feature of both experienced and relatively young democracies. General elective right won't be able to provide a high level of women representation. But to increase the number of women in parliament, is not the only challenge. It refers to the existing stereotypes that public space is the area of an action only for men.

## MAIN PART

Gender stereotypes influence negatively the functioning of society. Its effectiveness is much more noticeable on post-soviet countries than on western liberal states. Georgia had been under the northern tyranny for 70 years and it is clear that during that time even to speak about human rights was considered ineffective and pathetic. Though, the end of every empire is the same – to be separated. The influence of soviet-socialist ideology on modern states is quite big and thanks to it Georgia's progress to the west is hindered. This influence is quite apparent in the society where the results of gender inequality are quite dangerous. A woman is often the victim of domestic violence, underestimation and stereotypical treatment.

But the situation in Georgia was not always the same! Throughout the existence of our country, which counts thousands of years, on the land of free Georgians, women were always treated with respect by men. Their rights compared to the states of that time were on a higher level. The only woman governor in the world who was mentioned as a king not as a queen was Queen Tamar and the period of her ruling was called "Golden Age."<sup>4</sup>

But the country lost its independence through the northern power in the 19<sup>th</sup> century and had been under the influence of Tsarist ideology until 1918. The above-mentioned period caused the degradation of the nation, Russification. Our virtues and characteristic features would be forgotten if not the merit of such patriots as Ilia Chavchavadze and others. Regardless of that, historical circumstances and events have brought us to today's reality, to stereotypical attitude.

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<sup>3</sup> www.genderstereotypes.org/ka

<sup>4</sup> Men and Gender Relations in Georgia.0.pdf



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Such attitude brings us to weakening the function of the society, as women's abilities are often in doubt and some people consider that they can't realize their potential. Among widespread opinions are the following viewpoints: a woman can't become a leader, can't be involved in military fare, make important decisions, lead family or community affairs, take part in the reconstruction of the country and etc. Though, all the above-mentioned opinions belong to stereotypes and are not true. The work of many Georgian successful women proves it.

Nowadays many women are enrolled in the armed forces. They take part not only in large-scale affairs, but they also cope with professional challenges. Women also occupy responsible positions.

Women's participation in politics is low and it should be improved to meet the requirements of international norms and standards of gender equality. Gender inequality hinders individual or country development, society evolution and helps to create unfavorable environment for men and women. Society's attitude towards gender equality differs even in the societies which are on the same level of development. It changes according to such factors as religious traditions, type of state arrangement and the level of democratization.

Nowadays, when we argue about the meaning of representation, we should keep in mind four main arguments. According to the argument of justice, women make up half of the population, so they have the right to own half of the positions. An argument supported by the experience says that women have different experiences, constructed biologically or socially, whose representation is important. An argument supported by the interest, women and men have mutually opposite interests and accordingly, these interests should not be represented only by men. According to the symbolic argument, an activity of a female politician is a role model and attracts women to get involved in politics, in spite of the fact which political party it represents<sup>5</sup>.

Despite the tireless work of women's rights defenders, there are a lot of challenges in terms of protection of women's rights. Women's legal status in different periods and also in modern Georgian politics is discussed in the project, particularly, achievements and challenges in this direction.

Women and men not always had equal elective rights and the recognition of these rights was preceded by the active struggle of women, which dates back to XVIII-XIX centuries. Georgian society of that time was actively involved in the fight for women's rights and the idea of equality; involved in the struggle were well-known Georgians: Barbare Jorjadze, Ekaterine Gabashvili, Kato Mikeladze and others. Kato (Ekaterine) Mikeladze got acquainted with women European movement in Paris and in 1916, after returning to Georgia, she began

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<sup>5</sup> Electionreforms.ge

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to fight for women's rights with her fellow believers. In 1917-1918 a regional network "Women League" was formed under her leadership. She was a publisher and an editor of a newspaper "Voice of a Georgian woman".

Ekaterine Gabashvili was a prominent representative of Georgian critical realism. Many of her stories are devoted to women's issues – women's independence, their role in the family and society, the necessity of correct upbringing and education. Her women characters are oppressed from life and excluded from the society; some of them are victims of life injustice and community pressure, others gain victory thanks to their self-sacrifice. Barbare Eristavi-Jorjadze was a representative of Georgian culture, literary and public figure in the 19<sup>th</sup> century. She worked in the field of women's education and rights.

Kato Mikeladze and her fellow-believers made an attempt for women to become elected members of Georgia's Founding Assembly. At that time, women had no right to vote in many countries, but in Georgia 103 years ago, on 14-16 February, 1919 the first global, democratic elections were held in the history of Georgia, Georgian citizens elected Founding Assembly. These elections were significant due to several factors: Electoral Legislation of Georgia gave the right of voting to every citizen regardless of gender or origin. Women took part with both active or passive electoral right. For the election of founding assembly, on the electoral list of various political parties, up to 20 women candidates were registered. Five of them became the representatives: Elisabed Bolkvadze, Anna Sologhashvili, Kristine Sharashenidze, Eleonora Ter-Farsagova Makhviladze and Minadora Toroshelidze-Orjonikidze. This was a progressive event for the world of that time.

35 elections have been held in Georgia since 1990, among them: 10 parliamentary elections; 7-presidential elections; 8 – elections of municipality bodies; 8 – elections of the supreme council of Adjara; 1- elections of the head of Adjara; 1- the elections of the supreme council of Abkhazia. Also 2 referendums and 1 plebiscite had been held in Georgia since 1991. Gender equality in electoral processes is the part of electoral inclusion. Georgian Constitution recognizes and defends the equality of citizens of both sexes – women and men have the right to elect and to be elected on equal terms, without discrimination. Gender equality is recognized by the international agreement, including UN convention about "The Eradication of women's discrimination". We especially want to draw attention to 2018 presidential elections as a result of which the fifth president of Georgia became Salome Zurbishvili. According to 2020 data of Inter-Parliamentary Union, Georgia holds 144 positions according to the indicator of women's representation in the parliament among 193 countries in Georgia. It is almost behind every country in Europe except Malta, Hungary and Lichtenstein. According to the data of the latest 25 years, Georgia is progressing in terms of women's participation in politics, but at a low pace and inconsistently. In February, 2023 Georgian

parliament approved the package of amendments to the election code, including mandatory gender quotes. It specifies that in October 2024 and then up to 2028 parliamentary elections at least one in every four party lists should be female, while in Georgian parliamentary elections in 2028 October 28 and after that until 2032 one in every three-party list should be female. In the recent national elections, the share of women was 51 percent. In 2021 in Georgian parliament the share of women was 19 percent. In the executive branch, the share of women is 15 percent, while among ministers they hold – 25 %. Women make up 55% of the judges in general courts. However, the representation of women in the judiciary is low in managerial positions. Though, a large part of society cannot see the necessity of having women participate more actively, they aren't able to analyze the problems connected with gender inequality.

### CONCLUSION

Our cultural values and norms require women to be submissive and passive. The society that has been brought up with this belief, finds it difficult to accept the idea of gender equality, as it does not recognize the essence of the problem.

The establishment of gender quota will make a significant contribution to ensuring gender equality, improving state mechanism, making decisions and integrating gender mainstreaming organically.

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## APPLICATION OF CHEMICAL ANALYSIS, SYNTHESIS AND PURIFICATION METHODS IN THE PROCESS OF UTILIZATION OF EXPIRED TNT

Merab Nadirashvili,<sup>1</sup> Nino Abesadze

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### ABSTRACT

In the modern world, the scale of the use of explosives and explosion processes is immeasurable. Based on the current realities in Georgia, the study of the processes of utilization and recycling of expired TNT and other explosive substances released from ammunition is of great importance. The issue is doubly urgent, as these substances represent the greatest danger to the environment. Burning or destroying them is tantamount to an ecological disaster. For the same reason, keeping them for a long time is also dangerous. Instead, utilization will raise the prospect of recycling them into industrial explosives, which we consider the best way to solve the problem.

There are several key processes to be carried out for the utilization of TNT: chemical analysis of TNT, its purification by crystallization, synthesis of CT compounds, inclusion of the synthesis process in the analysis.

The article discusses a brief overview of the above processes, brings the results of our experiments in this direction, as well as brief conclusions.

**Keywords:** TNT, utilization, analysis, chromatography, spectroscopy, synthesis, explosives...

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<sup>1</sup> Grigol Tsulukidze Mining Institute, Senior research associate, Academic Doctor of Chemistry

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## INTRODUCTION

In general, the creation, research and use of substances are completely connected with the two main methods of chemistry - synthesis and analysis. The vast majority of explosives are created through organic synthesis. It is impossible to determine the chemical structure of any newly created substance, including explosives, without analysis. The same can be said for research and utilization processes of expired explosives.

The scope of analytical chemistry often goes beyond the boundaries of chemistry and reaches such important areas of human activity as criminalistics, food production, mineralogy, pharmacy, military affairs...

Chemical analysis of expired TNT includes both simple and instrumental methods. Below, a brief characterization of infrared - IR spectroscopy and HPLC chromatography methods is discussed.

As for the utilization of TNT, picric acid, tri nitro benzene and other poly nitro aromatic or PNA compounds, the cheapest and most effective way, we consider - the synthesis of such products of their chemical transformation, which will have the ability to explode back... First of all, are so-called CT compounds (Charge Transfer Compounds).

## MAIN PART

### 1. Basic methods of chemical analysis

#### *1.1. The essence of chemical analysis*

Analytical chemistry includes two directions. Determining the content of individual elements, ions, and groups of atoms in molecules is the task of qualitative analysis. The goal of quantitative analysis is to determine the percentage content of components. Before determining the quantity of a component, it is necessary to determine its presence in the sample. Therefore, qualitative analysis always precedes quantitative analysis.<sup>2,3</sup>

The analysis of an individual substance is reduced to the determination of individual components. As for a mixture of substances, here two circumstances can be considered: 1. The mixture contains a commercially interesting substance and a small amount of impurities. Analytical methods must be found that will confirm the identity of this substance. After that, an appropriate purification method must be found. 2. It is more difficult to study a mixture of substances. This requires systematic analysis...

*1.2. Infrared - IR spectroscopy.* When IR rays are passed through a substance, part of the energy of the radiation is absorbed. Each chemical bond is characterized by only a specific

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<sup>2</sup> A. P. Kreshkov fundamentals of analytical chemistry, book 1, Ed. „, Chemistry“, Moscow, 1976 (in Russian).

<sup>3</sup> V. N. Alekseev Qualitative analysis, „Goskhimizdat“ Moscow, 1953 (in Russian).

absorption band.<sup>4</sup> Based on the location of absorption minima in the IR spectrum, we can accurately determine the nature of a particular chemical bond. Previously, we synthesized more than 60 alkylphenols by alkylation of phenols with phenylacetylenic alcohols.<sup>5,6</sup> Below, the alkylation reaction of anisole with 3-phenylpropyn-2-ol-1 is presented, as well as the IR spectra of the alcohol and alkylanisole. Their comparison indicates an anomalous course of the alkylation reactions: not the acetylenic alcohol fragment, but its hydrated variation is replaced in the aromatic nucleus:<sup>7</sup>

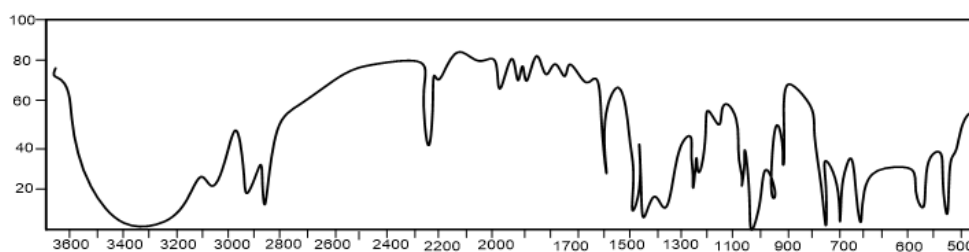
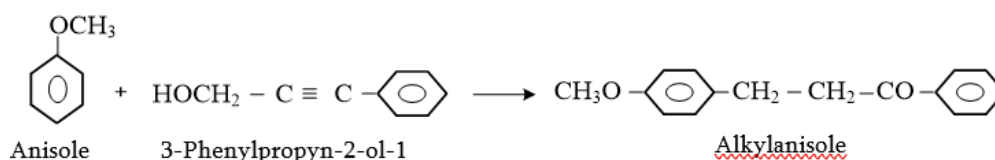


Fig. 1. IR spectra of 3-phenyl propyn-2-ol-1

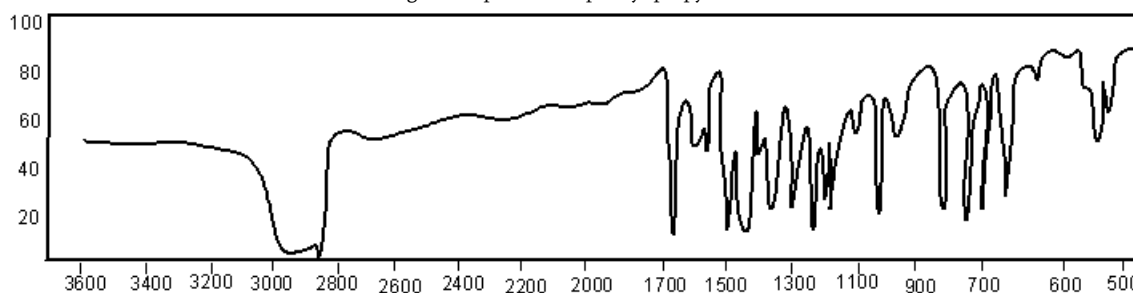


Fig. 2. IR spectra of alkyl anisole

Unlike phenylacetylenic alcohol, the IR spectrum of alkylanisole does not have a triple bond absorption band ( $\gamma$  C  $\equiv$  C, 2240  $\text{cm}^{-1}$ ), but instead, a band appears at 1679  $\text{cm}^{-1}$ , which is characteristic of the carbonyl group ( $\gamma$  C = O). This clearly indicates that the acetylenic alcohol undergoes a change (hydration) during the reaction. The spectrum of alkylanisole, as expected,

<sup>4</sup> J. Brand, G. Eglinton Application of spectroscopy in organic chemistry, publishing house, Mir' Moscow, 1967.

<sup>5</sup> A.I. Kakhniashvili, D.Sh. Ioramash-vili, M.D.Nadirashvili - "Synthesis and transformations of organogermanium and organosilicon unsaturated phenols"-VIIIth Inter-national Conference on Organome-tal-lic Chemistry, JAPAN. Kyoto, 1977, Abstr., 5 A12.

<sup>6</sup> Nikoloz Chikhradze, Merab Nadirashvili, Sergo Khomeriki, Iasha Varshanidze „The Synthesis of Phenyl Acetylene Phenols for Development of New Explosives”, World Multidisciplinary Earth Sciences Symposium WMESS, IOP Conf. Series: Earth and Environmental Science 95 (2017) 042030, Prague (Czech Republic).

<sup>7</sup> D. S. Ioramashvili, A. I. Kakhniashvili, M. D. Nadirashvili Interaction of 3-phenyl-2-propene-1-ol with phenols, Zhorkh 13, 804, 1978 (in Russian).

does not show the absorption bands of alcohol and phenolic hydroxyl. This example clearly demonstrates the importance of IR spectroscopy for the identification of chemical bonds.

**1.3. High-performance liquid chromatography - HPLC.** This is one of the most modern methods for the qualitative and quantitative analysis of organic compounds,<sup>8</sup> including explosives. Relevant - HPLC chromatograph is used for the analysis of solutions. Fig. 3 and Fig. 4 show its general scheme and chromatographic peaks a and b:

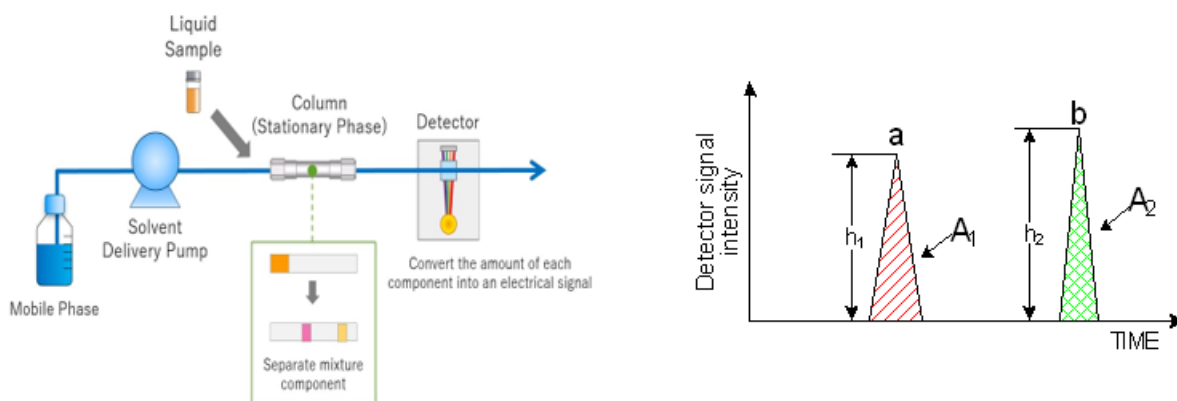


Fig. 4 General scheme of HPLC  
Chromatographic peaks, a and b chromatograph

The solvent, or mobile phase, is delivered by a special pump to the adsorption column (stationary phase) and then to the detector. A certain amount of the sample enters the column and the substances present in it are separated, which is recorded by the detector. The results, in the form of peaks, appear on the chromatogram. It is a two-dimensional graph, where the vertical axis represents the **concentrations** of components, and the horizontal axis represents the **time** of analysis. Based on the height ( $h$ ) and area ( $A$ ) of the peaks on the graph, one can judge about qualitative and quantitative content of components.

We use HPLC chromatography to analyze of expired TNT.

## 2. Purification of expired TNT by crystallization

We use two different crystallization methods to purify expired TNT that is u-TNT. The first involves dissolving u-TNT in a heated solvent (toluene, ethanol, etc.) until a saturated solution is formed. Crystallization occurs as a result of gradual or rapid cooling of the solution.

The second variation is to dissolve the u-TNT in one solvent and crystallize it in a second solvent that dissolves the first solvent but does not dissolve crystals. Several variations of this method can be developed.

<sup>8</sup> What is HPLC (High Performance Liquid Chromatography)? [https://www.shimadzu.com/an/service-support/technical-support/analysis-basics/basic/what\\_is\\_hplc.html](https://www.shimadzu.com/an/service-support/technical-support/analysis-basics/basic/what_is_hplc.html)



In both cases, whitish crystals are obtained from the brownish u-TNT, which are visually quite different from the initial crystals (Photos 1, 2).

These methods are based on a well-known rule of chemistry: during crystallization, as crystals mature and grow, impurity molecules practically do not enter the growing crystal matrix, but instead mix with the solvent and are filtered out of the purified crystals.

For the purpose of initial testing, we detonated expired and purified TNT in low-carbon steel tubes. The experiment shows that in the case of u-TNT, the tube breaks into several fragments (photo 4), while when purified TNT is detonated, the tube is completely fragmented (photo 3). In other words, in the latter case, the explosion power is significantly increased:

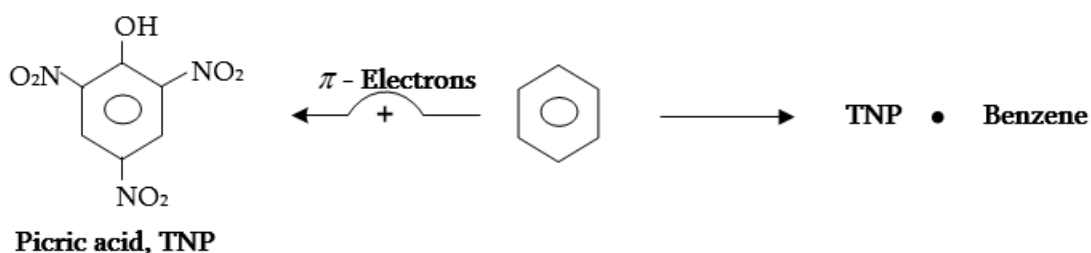


We determine the purity of the crystals using TLC that is thin layer chromatography.

After the experiments conducted by us at this stage and the confirmation of their results, it will be possible to **propose crystallization from solvents as one of the methods for utilizing expired TNT.**

### 3. CT compounds

**3.1. Mechanism of synthesis of CT compounds.** The presence of three nitro groups in the explosives molecule significantly impoverishes the  $\pi$ -electron system of the aromatic nucleus and gives the mentioned substances a strong electron acceptor property. Accordingly, their molecules acquire the ability to transfer  $\pi$ -electrons from electron donor molecules to themselves. At this time, there is no redistribution of chemical bonds and no formation of new bonds between the reacting molecules. Only electrostatic attraction occurs, resulting in



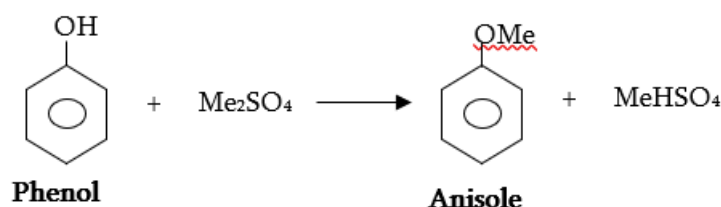


bimolecular aggregates - CT compounds [9], with a molar ratio of components of 1:1, which is expressed as follows in the example of picric acid and benzene:

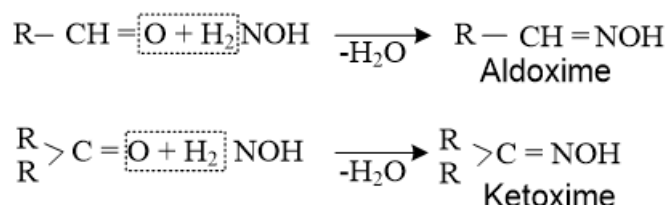
The general scheme for the synthesis of CT compounds can be represented as follows:

EL.ACCEPTOR COMP. + EL. DONOR COMP.  $\longrightarrow$  EL. ACCEPTOR COMP. • EL. DONOR COMP.

**3.2. Inclusion of the synthesis process of CT compounds in the analysis.** In general, the inclusion of synthesis processes in the analysis of an unknown substance is one of the well-known and at the same time effective methods. For example, the content of the hydroxyl functional group(OH) can be determined by methylation with dimethyl sulfate:

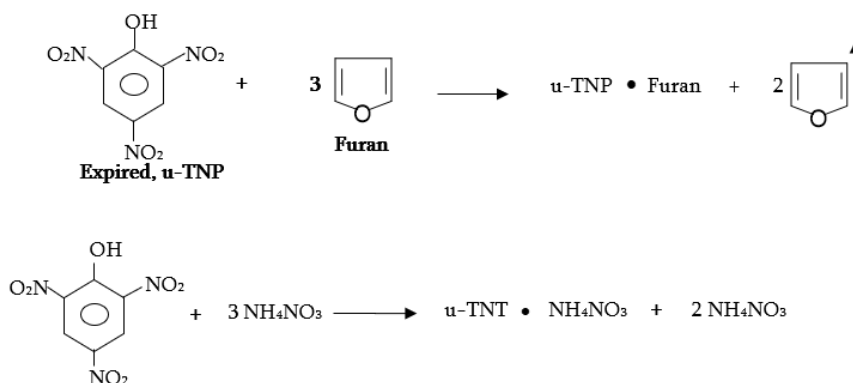


For the quantitative analysis of aldehydes and ketones, their reactions with hydroxylamine are used:



**The interaction of picric acid with alkaloids (morphine, nicotine, codeine, heroin...) is used for the analysis of the latter.** The mechanisms of this process and the formation of CT compounds are close to each other.

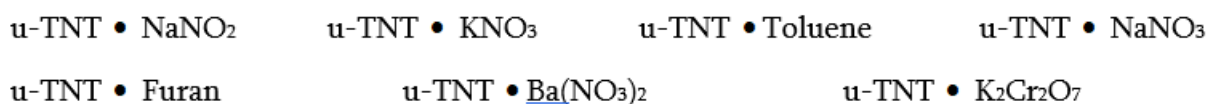
Based on the above, we considered it necessary to include the synthesis reactions of CT compounds of various structures in the analysis of expired TNT and other explosive PNA compounds. Such PNA compounds, as a rule, contain impurities. For example, during the synthesis of CT compounds from u-TNP, we use easily volatile furan (tbp = +32°C) and ammonium nitrate as electron-donor components, which we introduce into the reaction in a threefold excess:



At the end of the reaction, after evaporation of excess furan and removal of excess nitrate by dissolution in water, CT compounds are obtained, in which all u-TNP is bound to furan and nitrate in a 1:1 ratio. The impurities present in the sample are also dispersed in the CT compounds thus obtained. The latter can be removed by crystallization or other methods. After that, quantitative calculations that will give us the percentage content of the PNA compound are not difficult.

**3.3. CT compounds synthesized from u-TNT.** Lately, two dozen CT compounds have been obtained from TNT synthesized by us [10], as well as from pure TNT. Their explosive power significantly exceeds the same power of the original explosives.

This fact became the prerequisite for the synthesis of CT compounds from u-TNT, and then - for comparing their explosive ability with the same ability of u-TNT. A total of 7 CT compounds have been synthesized:



All seven CT compounds have been tested in an explosion. In all cases, there was intensive fragmentation of steel reels occurred. Photos of the four samples (5-8) are presented below:



Photo 5

u-TNT • NaNO<sub>3</sub>



Photo 6

u-TNT • KNO<sub>3</sub>



Photo 7

u-TNT • Toluene



Photo 8

u-TNT • Furan

These results allow us to draw an initial conclusion. **By synthesizing CT compounds, the explosive ability of not only pure PNA compounds increases significantly, but also of expired, utilized TNT too.**

**3.4. Priorities of synthesis of CT compounds.** The use of CT compound synthesis in the utilization of expired explosives has certain advantages:

1. The working capacity of the TNP • NH<sub>4</sub>NO<sub>3</sub> exceeds the same characteristic of the PNA compound (TNP). We expect similar results in other cases;
2. The synthesis of CT compounds proceeds without energy-intensive costs, with a maximum solution (output) of cheap and practically pure targeted products;
3. Synthesis of CT compounds, allows to regulate the sharply negative oxygen balance of PNA compounds towards zero;
4. By synthesizing CT compounds, the percentage of impurities (which prevent explosion) in the expired explosive is reduced;
5. The mass of synthesized CT compound increases, and even more so the greater the molecular mass of the electron donor component.

## CONCLUSION

1. From an expired PNA compound, such as TNT, it is possible to obtain more power, with more mass, cheap and practically pure explosive CT compounds with maximum output.
2. We consider it possible to offer the processes of synthesis of CT compounds and crystallization from solvents as cheap and effective methods of utilization of expired TNT.
3. The same processes, after proper examination, can be offered as a general method of utilization of expired TNT and other explosive PNA compounds.

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## DOES MILITARY SCIENCE BELONG TO A LINE OF PROFESSION?

Tinatin Kropadze<sup>1</sup>

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### ABSTRACT

The present article deals with military science as one of the professional occupations that we will meet today in the list of future activities presented to young people. The article aims at answering the questions such as: What is military science as a profession? Why should a young man serve in military service? When is a military serviceman deemed to be a professional? In general, what should be done by the state and the Ministry of Defense as well as society to develop a person into a professional military serviceman, etc.

For these purposes, the paper provides the definitions of terms such as line of profession, professional, traditional and modern professional occupations, professional military service, necessary personal characteristics, etc.

Additional emphasis on the definitions of concepts was conditioned by the progress of our life, which resulted in the expansion of the employment area and the creation of new professions. Therefore, over the last century, all this has led to a significant expansion of scientific terms, including the words denoting professional occupations and similar activities related to it.

In addition, the paper deals with the rights, duties, professional obligations, basic values and credits of a military serviceman as well as those motivational influences that will push him/her to do his/her best beyond the call of duty and by putting his/her own life at risk he/she will be able to save others. The behavior of a military serviceman is further strengthened by the legislation that regulates the engagement of Defence Forces in the so-called "hot points" during an emergency situation and/or a state of war in order to protect the country and its population. These and other facts give us the right to classify military service under risky professions.

In the work presented by me, you will meet the personal characteristics necessary for a military serviceman to receive an appropriate education, to advance in his/her military career, and to go through a difficult and stressful professional path. Unfortunately, not so rarely, the society does not quite understand the responsibilities and obligations of a military serviceman. On the other hand, at the beginning of the professional path, the individual understands and analyzes quite well that in general, it is the values and credits of both the defence system and the armed forces that make the military science more dignified, attractive and great as a professional occupation leading the true military serviceman to be a real professional of his/her activity.

**Key words:** Professional occupation, professional, military science, obligation, responsibility, decision.

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<sup>1</sup> Chief Scientist of the Scientific Research Center, LEPL – David Aghmashenebeli National Defence Academy of Georgia  
Professor, Alte University, PhD in Social Sciences

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## INTRODUCTION

Before addressing the question of whether military service constitutes a profession, it is essential to first define what it means to be a professional. Especially if military service is considered a distinct and unique profession, it becomes important to explore its ethos and fundamental values.

In contemporary usage, the term "professional" appears in a variety of contexts. At times, it refers to someone who is merely paid for their work, while at other times, it characterizes an individual who excels in their respective field. For instance, if we assert that a carpenter performed a genuinely professional job in comparison to what I might accomplish with wood, we are implying that the carpenter is indeed a true professional.

But what exactly constitutes a profession? Although this term is widely debated, most definitions share common elements, suggesting that members of a given profession provide significant public service, possess specialized or expert knowledge not available to those outside the field, are regulated by professional bodies, and adhere to a specific code of conduct. In other words, **professionals govern their behavior primarily by standards that are not obligatory for individuals outside their field.** The concept of a profession generally refers to a type of work performed within a particular occupation, defined as “a set of tasks and responsibilities characterized by significant similarities.” An individual holding a position may be associated with a profession in their current, past, or future employment.<sup>2</sup>

Historically, the traditional professions were considered to be the clergy, medicine, law, and so on. It could be argued that professions were originally defined as “the respectable pursuits of noble-class individuals.” All traditional professions embodied the aforementioned characteristics, distinguishing them from other contemporary occupations. Representatives of these professions historically occupied higher ranks of the social ladder and were often regarded as leaders within their communities. This likely contributed to the term “professional” acquiring its positive and esteemed connotation. Over time, the expansion of employment opportunities and the emergence of new professions over the last century have significantly broadened the meaning of the term.

Still, is military service truly a profession? Clearly, military personnel provide a public service: they are responsible for the defense of the entire state and its people, not just select individuals. Additionally, officers and non-commissioned officers (NCOs) possess specialized knowledge and expertise that is often inaccessible outside the military domain and can only be legitimately applied within the military profession. Military personnel are governed by

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<sup>2</sup> პროფესიების საერთაშორისო სტანდარტული კლასიფიკატორი.(2012). შრომის საერთაშორისო ბიურო. ქ. ჟენევა. ISCO-0808 I გამოცემა.

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their own code of conduct, and aside from extremely serious cases, all disciplinary matters are handled within the profession.

As we can see, the first three criteria for defining a profession are met. However, how do military personnel exercise professional discretion in their work? Unlike other professions, military personnel receive orders from the government and execute them. In democratic states, professional soldiers do not decide what actions to take on behalf of the state. This has led some sociologists to argue that the armed forces resemble a bureaucratic apparatus more than a genuine profession. The lack of autonomy suggests that military personnel are, in essence, representatives of the state machinery.

The fact that professional service implies obligations for military personnel does not mean they are directed in every aspect of their work. While a soldier may not choose their mission, how they carry out their duties falls under their core professional military competence.

It is important to note that officers and NCOs do not merely apply their specialized knowledge routinely; they are expected to exercise professional discretion and autonomy in their activities. This factor likely explains the difference in expectations between officers, NCOs, and rank-and-file soldiers, much like how we have different expectations for architects (typically considered members of a professional group) and craftsmen, who are not. However, I believe that senior NCOs are also expected to exercise discretion in their military duties, suggesting that officers are not the sole representatives of the military profession.

## MAIN PART

### Professional Responsibilities

Professionals are often granted special rights or privileges due to their professional status. For instance, certain medical professionals are authorized to prescribe medications - a right not granted to ordinary citizens. These special rights, however, come with moral obligations that surpass those expected of the general public. Historically, doctors have been morally obligated to assist those in need of medical help at any time and in any place.

Many professional roles create specific moral obligations, the fulfillment of which is essential to maintaining one's status within the profession. Does the military profession entail unique professional obligations? We have already determined that military service, or at least a significant portion of it, can be considered a profession. Now we must determine whether it is unique. According to the ISCO-08 (International Standard Classification of Occupations), military-related professions are classified into different subgroups at various qualification levels (12 and 4).

The first level of qualification involves performing simple, routine physical tasks. The second level requires a relatively high level of literacy, numerical skills, and the ability to read



safety instructions and prepare written reports on completed tasks. The fourth level involves solving complex problems, making decisions, and applying creativity based on a broad spectrum of theoretical and factual knowledge.

One of the distinctive characteristics of military service is the "unlimited liability contract," which may place military personnel in life-threatening situations.<sup>3</sup>

Over the years, Georgian servicemen, through their participation in international missions, have repeatedly demonstrated a high level of combat readiness and the ability to accomplish extremely challenging tasks, solidifying Georgia's reputation as a reliable ally in global security (International Missions).<sup>4</sup> For instance, in the international mission in **Iraq**, 8,495 Georgian servicemen participated across 19 rotations at various levels. "From 2008 to 2021, 22143 Georgian servicemen participated in over 100 rotations (ISAF RSM) as part of international missions in **Afghanistan**. Of these, 253 were injured, and 32 were killed" (Ministry of Defense of Georgia, 2022).<sup>5</sup> The Georgian Defense Forces have also been engaged in international missions in the **Central African Republic** since February 2017, conducting 12 rotations.<sup>6</sup>

According to the Law of Georgia on Defense, the Ministry of Defense and the Georgian Defense Forces are responsible for responding to emergencies, states of emergency, and wartime situations (Law of Georgia, 2004). For instance, on August 21, 2022, by order of the Prime Minister, the Defense Forces were mobilized to participate in rescue operations to prevent natural disasters and conduct effective firefighting actions (Prime Minister's Order №210). The Defense Forces also played a crucial role in assisting the population during the COVID-19 pandemic.<sup>7</sup>

Military service requires maintaining continuous external motivation for servicemen. The motivation to go beyond what is required by duty and to risk one's life to save others is precisely what is expected of individuals who choose high-risk professions. Do we have the same expectations of military personnel?

Military personnel may be legally ordered to act in situations where the probability of death is high. For example, when involved in international missions, soldiers are often tasked

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<sup>3</sup> T.Kropadze, Factors Determining The Combat Motivation. International journal. Gori.pp.41-47. 2022. ISBN-978-9941-8-5055-4.

<sup>4</sup> <https://mod.gov.ge/ge/mission>

<sup>5</sup> <https://infocenter.gov.ge/nato/international-missions/misia-avghanethshi/>

<sup>6</sup> ნ.გვალაია, საერთაშორისო მისიებში საქართველოს თავდაცვის ძალების კონტრიბუციის როლი და მისი მნიშვნელობა ქვეყნის საგარეო პოლიტიკაში, სამეცნიერო კონფერენცია: „ქალები, მშვიდობა, უსაფრთხოება-კონფერენცია 2021“, თბილისი, 2021.

<sup>7</sup> [https://www.gov.ge/files/562\\_82863\\_846175\\_210.pdf](https://www.gov.ge/files/562_82863_846175_210.pdf)



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with clearing areas of mines, an activity they execute with great honor and bravery. In this regard, military service is unlike any other profession.

Regarding the use of lethal force, if we compare the armed forces to the police, a police officer may only use deadly force to protect life. They cannot be ordered to destroy a target and take lives. This authority is reserved exclusively for military personnel.

Thus, we can confidently assert that military service is not only a profession but also an inherently risky and stressful occupation. Therefore, developing and maintaining the mental health of professional servicemen is a critical component of their long-term effectiveness.

### **Ethos and Core Values**

Given the seriousness of the risks associated with military service, every profession has its own set of personal characteristics, fundamental values, and guiding principles. These form the foundation of the behavior and character expected from individuals serving in these institutions.

A professional soldier must be resilient, courageous, emotionally balanced, and capable of making rapid decisions in critical situations. Despite these attributes, military service is often accompanied by various forms of mental health disorders due to stress, the most common being Post-Traumatic Stress Disorder (PTSD), which may require the involvement of specialists.

Personal characteristics manifest in corresponding behaviors and are heavily influenced by the values and principles that serve as their foundation. The values guiding the Georgian Defense Forces include loyalty, courage, integrity, care, responsibility, and selfless service (MOD, 2020).<sup>8</sup> While these values are specifically tailored to the Georgian Defense Forces, they are applicable to the armed forces of any nation.

These values are reinforced by the oath of loyalty, in which officers pledge allegiance not to government officials but to the state itself. This signifies that soldiers swear their loyalty not to a leader, prime minister, or president, but to something far greater. While the government, the people, and the state are often seen as one entity, this is not always the case.

Professions have red lines that their members must not cross. For instance, a doctor cannot be ordered to harm a patient or deny medical assistance to a wounded prisoner to extract information. Respecting the boundaries of professional conduct is essential, as such actions would be entirely inconsistent with the professional oath of loyalty.

By the same principle, it does not matter who gives the order or how important the person may be. Members of the armed forces have a legal and professional obligation to disregard orders that would violate the laws of armed conflict.

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<sup>8</sup> [https://mod.gov.ge/uploads/ministris\\_khedva\\_2020/xedva\\_2020.pdf](https://mod.gov.ge/uploads/ministris_khedva_2020/xedva_2020.pdf)

## CONCLUSION

In conclusion, military service is undeniably a profession—one that is highly respected, honorable, and difficult to attain. Those who choose to pursue this field, and meet the necessary conditions, will develop into true professionals. Citizens who gain academic and practical knowledge in the military and embrace the core values and professional obligations of the system will exhibit their professionalism in challenging situations, maintaining their mental health and making sound decisions with dignity and trust.

It is equally important that the government and society provide support to those who aspire to serve in the armed forces. This includes the proper selection, training, and education of personnel, as well as constant monitoring and promotion of mental health for military personnel and their families, especially in high-risk, stressful situations.

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## THE NEXUS OF DISINFORMATION, ATTRIBUTION, AND ESCALATION: UNRAVELING THE COMPLEXITIES OF CYBER OPERATIONS AND WARFARE

Salome Davituliani<sup>1</sup>

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### ABSTRACT

The nexus between disinformation, attribution, and escalation in cyber operations and warfare is a complex issue that poses unique risks to populations worldwide, especially vulnerable communities. This abstract provides a glimpse into the intricate web of interactions between disinformation, attribution, and escalation in the realm of cyber operations and warfare, with a specific focus on the ongoing Russian-Ukraine conflict. In an era where information is wielded as a potent weapon, understanding the dynamics of how false narratives are propagated, the challenges in accurately attributing cyber attacks, and the implications for the escalation of hostilities is crucial. The paper explores the multifaceted role of disinformation as a strategic tool, employed not only to deceive adversaries but also to manipulate public opinion and sow discord. It delves into the complexities of attribution, highlighting the hurdles in identifying the true originators of cyber operations amidst the use of proxies and sophisticated techniques. Furthermore, the study underscores the pivotal role of accurate attribution in preventing unintended escalation and miscalculations that may arise from misinterpreted actions. By examining the interplay of these elements, especially in the context of hybrid warfare, the abstract emphasizes the global implications of the nexus, extending beyond the immediate conflict zones. The research advocates for comprehensive strategies that integrate technological advancements, international cooperation, and a nuanced understanding of the geopolitical landscape to effectively address and mitigate the challenges posed by disinformation, attribution, and escalation in contemporary cyber warfare. It is crucial to analyze data, provide knowledge, and advocate for regulatory processes to protect vulnerable populations.

**Key words:** disinformation, attribution, escalation, cyber operations, Russian-Ukraine Conflict.

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<sup>1</sup> Junker of Bachelor's Program in Informatics of LEPL-David Aghmashenebeli National Defence Academy of Georgia

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## INTRODUCTION

In the intricate landscape of cyber operations and warfare, a nexus of profound significance emerges as we explore the interconnected realms of disinformation, attribution, and escalation. This dynamic triad not only encapsulates the multifaceted nature of modern cyber conflicts but also underscores the intricate challenges faced by governments, organizations, and individuals in understanding, mitigating, and responding to the evolving threats in the digital domain. The interplay between deliberate misinformation, the elusive quest for attribution, and the potential for rapid escalation introduces a complex and often opaque dimension to cyber operations, necessitating a comprehensive examination of the intricate web woven by these interrelated elements. In this exploration, we embark on a journey to unravel the complexities inherent in the convergence of disinformation, attribution, and escalation within the context of cyber operations and warfare, seeking to comprehend the implications for security, diplomacy, and the very nature of conflict in our increasingly interconnected world. For further investigation, the first essential step is to provide feasible and accurate definitions for each term mentioned to have a profound grasp of the whole picture. Commencing with an examination of the historical context is essential, as it distinctly elucidates Russia's belligerent disposition towards both proximate and more distant nations. The presented cases serve as tangible manifestations, laying bare Russia's sustained engagement in cyber aggression over time.

## MAIN PART

Looking at the history of Russian cyber operations, the Kremlin employs cyber means to engage in long-term competition with rivals. Before 2014, Moscow's juggernauts tended to concentrate on political warfare and spying. Operations in Estonia and Georgia were the most prominent. Massive denial-of-service operations sought to discipline Estonia in 2007 after the country moved the Russian monument known as the Citation Dogface. During the Russo-Georgian conflict of 2008, Russia leveraged cyberattacks to enable information operations (IO) against Georgia. Russian's IO aimed "to impact, disrupt, loose, or convert the decision-timber of adversaries and implicit adversaries while guarding( their) own."

In a precursor of its military crusade to destroy Ukrainian critical structure, Moscow also used cyber operations to target Kyiv's power force. Following the illegal annexation of Crimea in 2014, advanced persistent threat (APT) groups similar as Sandworm were intertwined in the 2015 BlackEnergy crusade targeting Ukrainian power generation and distribution. While the attacks captured captions, they produced limited goods.<sup>2</sup> In 2017, Russian-linked groups

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<sup>2</sup> <https://www.mandiant.com/resources/blog/ukraine-and-sandworm-team>

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launched the NotPetya crusade, which produced goods that revealed over from the intended targets, Ukrainian companies, to affect global logistics.<sup>3 4</sup>

Russia has also used cyber operations as a form of political warfare, using a blend of propaganda to centralize societies and impact political choices. Of note, these sweets included resemblant dislocation juggernauts seeking to deface websites and portray sympathizers for Ukraine as Nazis.<sup>5</sup> This crusade was followed by the indeed more audacious attempt to undermine confidence in U.S. republic through the 2016 operations targeting the presidential election, where the goods are still batted. In 2018, U.S. Cyber Command used Russia's once geste as well as other pointers and warnings that Moscow was about to repeat its sweets as defense for launching a preemptive operation against the Internet Research Agency, a Russian propaganda and influence operation establishment, designed to avert attacks during the elections.<sup>6</sup>

More lately, Russian operations have combined a blend of sophisticated spying and felonious malware juggernauts. For utmost of 2020, the Russian hacking group APT29, or Cozy Bear, exploited a force chain vulnerability in the SolarWinds Orion program to exfiltrate data and digital tools from an expansive list of targets. (David Sanger, Nicole Perlroth, Eric Shmitt 2020) The operation raised alarm bells since neither the NSA nor major enterprises similar as Microsoft detected the intrusion and because it probably involved a combination of mortal intelligence and cyber operations to fit vicious law deep into waiters. In 2021, felonious actors known as DarkSide, probably linked to the Russian state, were successful in planting ransomware against Colonial Pipeline, the system that moves much of the energy used across the United States' East Coast.<sup>7</sup>

The term "attribution" is frequently used in the context of the Russia-Ukraine war to refer to the identification and assignment of responsibility for various actions, events, or cyberattacks. Determine the parties involved, their motivations, and the consequences of their actions. Attribution is critical in international conflicts because it clarifies responsibility and guides international responses. One example is the downing of Malaysia Airlines Flight MH17 in July 2014. The international investigation into the incident attributed the downing of the civilian airliner to a Buk surface-to-air missile system that was fired from an area controlled by pro-Russian separatists in Eastern Ukraine. The Joint Investigation Team (JIT), consisting

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<sup>3</sup> <https://news.bloomberglaw.com/privacy-and-data-security/mercks-1-4-billion-insurance-win-splits-cyber-from-act-of-war>

<sup>4</sup> <https://www.wired.com/2016/03/inside-cunning-unprecedented-hack-ukraines-power-grid/>

<sup>5</sup> <https://www.nytimes.com/interactive/2022/07/02/world/europe/ukraine-nazis-russia-media.html>

<sup>6</sup> [https://www.washingtonpost.com/world/national-security/us-cyber-command-operation-disrupted-internet-access-of-russian-troll-factory-on-day-of-2018-midterms/2019/02/26/1827fc9e-36d6-11e9-af5b-b51b7ff322e9\\_story.html](https://www.washingtonpost.com/world/national-security/us-cyber-command-operation-disrupted-internet-access-of-russian-troll-factory-on-day-of-2018-midterms/2019/02/26/1827fc9e-36d6-11e9-af5b-b51b7ff322e9_story.html)

<sup>7</sup> (David E. Sanger, Nicolo Perlroh 2021)

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of investigators from Australia, Belgium, Malaysia, the Netherlands, and Ukraine, played a significant role in the attribution process.<sup>8</sup>

In the warfare, escalation refers to the process by which a conflict intensifies, typically involving an increase in the severity, scale, or scope of hostilities. It can manifest in various forms, such as a progression from low-intensity conflict to full-scale war, a rise in the level of military force employed, or an expansion of the conflict to new geographical or strategic dimensions. In the Russo-Ukraine war, the term "escalation" is pertinent to describe the dynamic shifts and developments in the conflict. Here are key aspects of how escalation is connected to the Russo-Ukraine war. One of the clear example of military escalation is conflict which began in 2014 as a territorial dispute between Russia and Ukraine, primarily centered around Crimea and eastern Ukraine. Over time, the conflict has witnessed periods of heightened military engagement, with both conventional and irregular forces involved.

Disinformation refers to the deliberate spread of false or misleading information with the intention to deceive, manipulate perceptions, and achieve specific strategic goals. In the context of the Russia-Ukraine war, disinformation has played a significant role, shaping narratives and influencing public opinion both within the countries involved and internationally. Disinformation campaigns target prominent individuals and organizations to help amplify their narratives. These secondary spreaders of disinformation narratives add perceived credibility to the messaging and help seed these narratives at the grassroots level while disguising their original source. Targets are often unaware that they are repeating a disinformation actors' narrative or that the narrative is intended to manipulate. The content is engineered to appeal to their and their follower's emotions, causing the influencers to become unwitting facilitators of disinformation campaigns.<sup>9</sup>

Between November 29, 2021, and May 9, 2022, the CSIS research team examined data from Ukrainian government sources and Microsoft reports to identify 47 publicly attributed cyber incidents associated with Russia's campaign during the first year of the war in Ukraine. This dataset provides a reliable account of these incidents, free from bias introduced by news accounts. However, it is important to note that these incidents form only a small but representative sample of the larger population of intrusions due to the covert nature of cyber operations.

Analyzing this data alongside the DCID 2.0 dataset, if cyber operations were primarily focused on intelligence gathering and shaping activities like deception, one would expect to observe this tendency especially during the early stages of the conflict in Ukraine. This implies that even though datasets like DCID 2.0 may represent a small fraction of total cyber incidents,

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<sup>8</sup> "Crash of Malaysia Airlines flight MH17" Report, Hague, 2015

<sup>9</sup> [www.cisa.gov/sites/default/files/publications/tactics-of-disinformation\\_508.pdf](https://www.cisa.gov/sites/default/files/publications/tactics-of-disinformation_508.pdf)

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they should still demonstrate an increase in frequency without a corresponding increase in severity during the initial phases of the 2022 conflict compared to prewar statistics. However, since pinpointing the exact start of a cyber campaign is challenging, there could be a lag in reporting resulting in spikes around major hostilities' commencement. When analyzing the style of Russian attacks, our research team observed that Russia's cyber activity during the war has been more focused on disruption rather than degradation, which aligns with their previous behavior. As depicted in Figure 2, when examining these cyber operations by type, Moscow has shown a preference for disruptive shaping activities and cyber espionage campaigns. During the initial months of the 2022 Ukraine invasion, disruptive incidents accounted for 57.4 percent of the total incidents, followed by espionage at 21.3 percent. This emphasis on disruptive operations differs from Russia's prewar conduct, which primarily emphasized espionage. However, it is noteworthy that degradative cyber operations never constituted a majority in both the prewar and war samples. It is important to note that similar to past instances, Russia's previous cyber operations failed to elicit any concessions from Ukraine. Additionally, no concessions were made by Ukraine throughout the duration analyzed in this study.

**Recommendation 1: Establish Clear Attribution Processes, Increasing public-private partnerships** - Develop robust and transparent processes for attributing cyber incidents to specific actors. Clarity in the attribution process is essential to avoid misattribution or the spread of disinformation. Governments and military organizations should establish well-defined methodologies that rely on a combination of technical analysis, intelligence gathering, and collaboration with international partners. Clear criteria for attribution should be established, and the findings should be communicated responsibly. Increasing public-private partnerships (PPP) to support cyber defense is a strategic approach to addressing the growing challenges posed by cyber threats. This collaboration involves cooperation between government entities and private-sector organizations to enhance the overall resilience of critical infrastructure, protect sensitive information, and strengthen the cybersecurity posture of nations

**Recommendation 2: International Collaboration on Cyber Threat Intelligence** - Foster international collaboration and information sharing on cyber threat intelligence. Cyber threats often transcend national borders, and collaboration is essential for a comprehensive understanding of the threat landscape. Establishing trusted channels for sharing threat intelligence among nations helps in validating findings, reducing the risk of misattribution, and facilitating a coordinated response to cyber incidents. International partnerships can contribute to a collective defense against cyber threats and promote stability in cyberspace. Increasing diplomatic engagement around cyber defense and shared intelligence is a crucial



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strategy in addressing the global challenges posed by cyber threats. Diplomatic efforts can facilitate cooperation, information exchange, and the development of norms and agreements to enhance collective cybersecurity.

**Recommendation 3: Engage in Crisis De-escalation Protocols** - Develop and implement crisis de-escalation protocols to manage potential conflicts arising from cyber incidents. In the event of a cyber incident with potential attribution challenges, having clear protocols for de-escalation is crucial. Establishing communication channels, both direct and third-party mediated, can help in defusing tensions and preventing the situation from escalating into a broader conflict. Diplomatic engagement and crisis communication plans should be in place to address misunderstandings and provide an avenue for responsible dialogue.

## CONCLUSION

In conclusion, the intricate interplay between disinformation, attribution, and escalation in the realm of cyber operations and warfare underscores the multifaceted challenges and complexities that governments, military entities, and cybersecurity professionals face in the digital age. This research has delved into the intricate web of issues surrounding the nexus of disinformation, attribution, and escalation, highlighting key insights and recommendations for navigating this dynamic landscape.

The analysis has demonstrated that the deliberate dissemination of false information, coupled with challenges in accurately attributing cyber incidents, poses a significant threat to national security, international relations, and the stability of cyberspace. Disinformation campaigns, often fueled by state and non-state actors, exploit vulnerabilities in information ecosystems, shaping narratives to influence perceptions and manipulate public opinion. The consequences of misattribution, whether intentional or unintentional, can lead to diplomatic tensions, miscalculations, and the potential for cyber conflicts to escalate into broader geopolitical crises.

Addressing these challenges necessitates a comprehensive and adaptive approach. Recommendations include the establishment of transparent attribution processes, international collaboration on cyber threat intelligence, and the development of crisis de-escalation protocols. These measures aim to enhance the accuracy of attributions, promote information sharing among nations, and provide mechanisms for responsible crisis management, ultimately contributing to a more stable and secure cyberspace.

As the digital landscape continues to evolve, it is imperative for stakeholders to remain vigilant, continuously reassess strategies, and foster global cooperation. The nexus of disinformation, attribution, and escalation demands ongoing research, technological innovation, and diplomatic initiatives to build a resilient defense against emerging threats. By unraveling these complexities and implementing effective countermeasures, the international



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community can navigate the challenges posed by cyber operations and warfare, safeguarding the integrity of information, protecting national interests, and promoting stability in the digital era.

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## RUSSIAN FOREIGN POLICY SINCE THE 90S

Nikoloz Esitashvili<sup>1</sup>

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### Abstract

This is an exploratory study which reviews Russia's foreign policy from the 90s to the present day. Three theoretical perspectives studying Russia's foreign policy are reviewed in detail. The review shows that the existing theories cannot adequately explain Russia's foreign policy towards Georgia well. The study suggests that Ontological Security Theory (OST) can be a better tool to study Russia's foreign policy towards Georgia and the rest of the paper is used to explain different versions of the theory and provide empirical validation for the use of OST.

**Keywords:** Ontological Security Theory (OST), Georgia, international relations, security, Russia

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<sup>1</sup> Chief researcher of the Scientific Center of LEPL - David Aghmashenebeli National Defence Academy of Georgia, Candidate of Military Sciences

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## INTRODUCTION

The development of Russian foreign policy has long been under intense scrutiny in the field of international relations (IR) – especially since the collapse of the Soviet Union (henceforth: USSR) in 1991. This is of great importance not only for studying the cataclysmic effect of the end of the Cold War on Europe and the world, but also for explaining the further aggressive policy of the Russian state towards the post-Soviet space. The result of this aggressive policy is the Russia-Georgia war in 2008 and the conflict in the eastern part of Ukraine, as well as in Crimea since 2014, which led to a full-scale Russian invasion of Ukraine in February 2022.0

## MAIN PART

Many different and sometimes conflicting theoretical perspectives have been used to explain Russia's foreign policy strategy and actions. Broadly speaking, the literature on Russian foreign policy can be divided into three camps: power-based explanations, ideological explanations, and domestic political explanations.<sup>2</sup>

First, those who rely on power-based explanations argue that the balance of power in the global system of states is paramount and prioritize the material threats that arise from it.<sup>3</sup> Others argue that the situation is exactly the opposite, namely that long-term decline in power forces Russia to act as a great power and to be assertive and create favorable international structures.<sup>4</sup> Finally, some point out that Russia's behavior is a common case of balancing against the West and the so-called creation of buffer zones between the EU and NATO on the one hand and Russia on the other.<sup>5</sup>

Second, an idea-based explanation emphasizes intangible security issues such as identity, values, or norms to understand Russian foreign policy motivations. Much of this literature deals with Russia's self-image as a great power and its recognition by the international community.<sup>6</sup> Related to this is the opinion that Russia, as a great power, has the right to interfere in its sphere of influence.<sup>7</sup> Importantly, many scholars have used ontological security theory (OST) to explain his foreign policy. Others point to a different formation of identity in

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<sup>2</sup> Elias Götz, “Putin, the State, and War: The Causes of Russia’s near Abroad Assertion Revisited\*+,” *International Studies Review* 19, no. 2 (May 10, 2016): 228–53, <https://doi.org/10.1093/isr/viw009>.

<sup>3</sup> Andrei P. Tsygankov, “Projecting Confidence, Not Fear: Russia’s Post-Imperial Assertiveness,” *Orbis* 50, no. 4 (September 2006): 677–90, <https://doi.org/10.1016/j.orbis.2006.07.008>.

<sup>4</sup> Andrej Krickovic, “The Symbiotic China-Russia Partnership: Cautious Riser and Desperate Challenger,” *The Chinese Journal of International Politics* 10, no. 3 (2017): 299–329, <https://doi.org/10.1093/cjip/pox011>.

<sup>5</sup> Alexander Korolev, “Theories of Non-Balancing and Russia’s Foreign Policy,” *Journal of Strategic Studies* 41, no. 6 (February 3, 2017): 887–912, <https://doi.org/10.1080/01402390.2017.1283614>.

<sup>6</sup> Iver B Neumann, “Russia as a Great Power, 1815–2007,” *Journal of International Relations and Development* 11, no. 2 (May 20, 2008): 128–51, <https://doi.org/10.1057/jird.2008.7>.

<sup>7</sup> Johan Matz, *Constructing a Post-Soviet International Political Reality: Russian Foreign Policy towards the Newly Independent States 1990-95* (Uppsala: éditeur non identifié, 2001).

the Russian state and politics. The idea here is that there is competition between different narratives both within the population and among political elites about what characterizes Russia. March, Engstrom, Tsygankov, and Hopf argue that the shift from "statist nationalism" to a "conservative," "ethno-nationalist," or "civilizational" form of national identity explains Russia's shift from pro-Western to expansionist foreign policy.

Third, and lastly, scholars also argue that the internal political structures and form of government in Russia and/or the characteristics of the political elite—primarily Vladimir Putin—determine Russia's foreign policy strategy. Within this camp of explanations, some scholars argue that Russia's foreign policy rapprochement with like-minded authoritarian states and interference in the democratization of its neighboring countries (eg, Ukraine and Georgia) is done to ensure regime survival.<sup>8</sup> The argument is that the proliferation of democracies and states that uphold the liberal international order near Russia could potentially destabilize its authoritarian system. This is, among others, according to Marten, expressed in the patron-client networks that Russia maintains with Iran and Syria. Scholars also point to the professional background and personal characteristics of President Vladimir Putin, as well as the importance of the worldview of the political elites around him.<sup>9</sup>

Some researchers specifically refer to the 2008 Russia-Georgia war. Several scholars have focused on Russia's foreign policy towards Georgia before and after the 2008 war. For example, Wilhelmsen argues that Russia's foreign policy strategy is based on the securitization of Georgia as a "Western proxy" and, therefore, a threat to Russia's neighborhood and sphere of influence.<sup>10</sup> Strichartz emphasizes the importance of changing role concepts in Russia. In the wake of the 2003 Rose Revolution in Georgia, Russia supported cooperative policies because of its belief in good relations with the West, internal development in Russia, and the presence of liberal advisers.<sup>11</sup>

However, this conception of the national role changed before and after the 2008 war, where self-image as an increasingly important great power, along with changes in the global balance of power, made Russia more aggressive in its foreign policy. The latter perspective is somewhat reflected in Rezvan's argument that part of Russia's strategy towards the post-Soviet space, which is also Georgia, can be explained by the neorealist paradigm of securing

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<sup>8</sup> ROY ALLISON, "Russia and Syria: Explaining Alignment with a Regime in Crisis," *International Affairs* 89, no. 4 (July 2013): 795–823, <https://doi.org/10.1111/1468-2346.12046>.

<sup>9</sup> Ian Bremmer and Samuel Charap, "The *Siloviki*n Putin's Russia: Who They Are and What They Want," *The Washington Quarterly* 30, no. 1 (January 2007): 83–92, <https://doi.org/10.1162/wash.2006-07.30.1.83>.

<sup>10</sup> Julie Wilhelmsen, "Identification and Physical Disconnect in Russian Foreign Policy: Georgia as a Western Proxy Once Again?," *European Journal of International Security* 8, no. 1 (May 27, 2022): 89–108, <https://doi.org/10.1017/eis.2022.18>.

<sup>11</sup> Damian Strycharz, "Shifts in Dominant National Role Conceptions and Changes in Russia's Foreign Policy," *Role Theory and Russian Foreign Policy*, March 9, 2022, 181–204, <https://doi.org/10.4324/9781003219200-9>.

geopolitical security interests.<sup>12</sup> However, to understand the full picture, it is necessary to take into account Russia's imperial historical experience, which led to the role concept of the existence of a legitimate great power in its sphere of influence.

## CONCLUSION

What can be seen from the above is that no scholar has used OST's views to investigate Russian foreign policy in the case of Georgia. Nevertheless, OST was used in a broader context to understand Russia's general foreign policy strategy. Most of these papers examine the consequences of the relationship between the West and Russia on their respective feelings of ontological security and, therefore, on behavior. Some argue that Russia's assertive foreign policy can be attributed to the West's partial or total ignorance of Russia's self-esteem as a great power.<sup>13</sup> Others argue that Russia's hostility to the West has led to a sense of "Russianness" and Russian "civilization" that emphasizes traditional values and norms and aims to build unity in the post-Soviet space over ideological, spatial, and social factors.<sup>14</sup> The collapse of the USSR is a collective trauma for Russia, and the liberal international order represented by the West stands against it and sows ontological security fears for Russia.<sup>15</sup> It is possible that the rise of geopolitical rhetoric in Russia's foreign policy discourse is an attempt to reduce ontological insecurity resulting from the end of the Cold War, and Russia is trying to reestablish itself as a great power. Finally, Akchurina and Della Sala suggest that Russia and the EU have created an endemic situation of conflict in regions of mutual interest because their narratives about these regions and the behavior that this entails pose an ontological threat to the other.<sup>16</sup>

There are two important gaps in the study of Russia's international relations policy, which can be summarized as the need for a long-term study of Russia's foreign policy towards Georgia and doing it on the basis of the OST. Filling these gaps will allow us to better understand Russia's foreign policy and specifically Russia's foreign policy towards Georgia.

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<sup>12</sup> Babak Rezvani, "Russian Foreign Policy and Geopolitics in the Post-Soviet Space and the Middle East: Tajikistan, Georgia, Ukraine and Syria," *Middle Eastern Studies* 56, no. 6 (July 23, 2020): 878–99, <https://doi.org/10.1080/00263206.2020.1775590>.

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<sup>14</sup> Flemming Splidsboel Hansen, "Russia's Relations with the West: Ontological Security through Conflict," *Contemporary Politics* 22, no. 3 (June 28, 2016): 359–75, <https://doi.org/10.1080/13569775.2016.1201314>.

<sup>15</sup> Christian Kaunert, "EU Eastern Partnership, Hybrid Warfare and Russia's Invasion of Ukraine," *Eucrim - The European Criminal Law Associations' Forum*, 2022, <https://doi.org/10.30709/eucrim-2022-011>.

<sup>16</sup> Viktoria Akchurina and Vincent Della Sala, "Russia, Europe and the Ontological Security Dilemma: Narrating the Emerging Eurasian Space," *Europe-Asia Studies* 70, no. 10 (November 26, 2018): 1638–55, <https://doi.org/10.1080/09668136.2018.1546829>.

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## INNOVATIVE APPROACHES TO HOLOCAUST EDUCATION: ENHANCING DEMOCRATIC COMPETENCES THROUGH SURVIVOR TESTIMONIES, VIDEO GAMES, AND INTERACTIVE TECHNOLOGIES

Tatia Mardaleishvili,<sup>1</sup> Nino Akhaladze<sup>2</sup>

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### ABSTRACT

Teaching about the Holocaust is essential for fostering democratic competences such as critical thinking, empathy, and an understanding of human rights. This education prompts students to reflect on the dangers of prejudice, discrimination, and unchecked power, helping them appreciate the importance of protecting democratic values like equality, justice, and respect for diversity. The handbook *Learning From The Past, Acting For The Future* advocates an interdisciplinary approach that integrates Holocaust education with human rights and intercultural education. This approach enables students to connect past atrocities with present-day issues, emphasizing the need for action against human rights violations and resistance to populist rhetoric. By examining the Holocaust through the lens of human rights, students are better prepared to contribute to democratic and intercultural societies where every individual can live with dignity. By examining effective strategies such as analyzing survivor testimonies, exploring Holocaust representations in video games, and utilizing immersive tools like the iWalk app, this article demonstrates how educators can enhance student engagement and understanding. The integration of these approaches not only makes the Holocaust more relatable but also equips students with critical thinking, empathy, and a commitment to democratic values.

**Key Words:** Holocaust Education, Interdisciplinary Approaches, iWalk App, Democratic Competences, Teaching Methods

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<sup>1</sup> English Language Mentor Teacher, LEPL General Giorgi Kvinitadze Cadets Military Lyceum, PhD

<sup>2</sup> English Language Mentor Teacher, LEPL Kutaisi St. Nino Public School N3

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## INTRODUCTION

In August 2024, we had the great opportunity to attend seminars organized by LEPL National Center for Teacher Professional Development of Georgia, the Education and Research Centre, and TOLI (The Olga Lengyel Institute for Holocaust Studies and Human Rights). The speakers were exceptionally experienced, highly qualified, and deeply knowledgeable in their fields. These seminars were incredibly beneficial for us - the teachers, as we gained valuable insights into the significance of Holocaust education. We also discovered some fascinating interdisciplinary approaches and methods that address this critical issue. In this article, we aim to share some of these approaches and emphasize the importance of teaching about the Holocaust to foster democratic competences and promote human rights.

The importance of teaching the Holocaust cannot be overstated, especially in today's world. Amber Tilley, a teacher at Northland Pines High School, has been educating her students about the Holocaust for 23 years and deeply understands its urgency. "I see the urgency in teaching students about this history so that they are better humans, more understanding, and will not stand down to wrongdoing at the hands of an oppressor," she emphasizes. Her experience at her first TOLI seminar in New York City in 2016 profoundly influenced her teaching approach. "It helped shape my own educational approach to incorporate more primary sources such as survivor testimony, diaries, and newspaper articles," she reflects. Tilley's perspective highlights the critical need to educate students about the Holocaust, not just as a historical event, but as a means to cultivate empathy, moral courage, and a commitment to justice in the face of oppression.

## MAIN PART

### Literature Review

Holocaust education is an essential element in cultivating empathy, critical thinking, and an understanding of human rights among students. As Adorno argues in *Education after Auschwitz*, "the premier demand upon all education is that Auschwitz not happen again." He emphasizes that Holocaust education should go beyond the transmission of historical facts and should aim to prevent the recurrence of such inhumanity by fostering critical awareness and moral responsibility among learners. Adorno's work highlights the importance of integrating Holocaust education into a broader ethical framework that challenges students to reflect on their role in society and their capacity to resist oppression.

Aalai explores the impact of Holocaust education on college students, particularly through the lens of complicity and collaboration. Her study, published in the *Journal of Transformative Education*, reveals that "the theme of complicity and collaboration in Holocaust education helps students understand that indifference and inaction can be as dangerous as active participation in atrocities." Aalai's research underscores the transformative

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potential of Holocaust education in shaping students' understanding of moral responsibility and the consequences of passive complicity in the face of injustice.

In the context of Polish education, Ambrosewicz-Jacobs & Szuchta examine the challenges and opportunities in teaching the Holocaust in Poland, a country with a complex and painful relationship to this history. Their study in *Intercultural Education* highlights how Polish students' understanding of the Holocaust is shaped by the country's national narrative and the intricacies of confronting difficult aspects of local history. They argue that "teaching the Holocaust in Poland requires an approach that carefully balances historical accuracy with sensitivity to the local context, ensuring that students are encouraged to critically engage with their nation's past."

The intersection of Holocaust education and democratic competence is further explored by Barrett in his examination of the Council of Europe's Reference Framework of Competences for Democratic Culture. Published in the *London Review of Education*, Barrett's work outlines how Holocaust education can contribute to the development of critical democratic competences, such as empathy, respect for diversity, and critical thinking. By integrating these competences into Holocaust education, educators can help students understand the importance of democratic values in preventing future atrocities.

Totten & Feinberg, in their book *Teaching and Studying the Holocaust*, provide a comprehensive guide for educators on how to approach Holocaust education. They emphasize the importance of using a variety of pedagogical methods, including primary source analysis, survivor testimonies, and interdisciplinary approaches, to help students connect with the material on a deeper level. Totten and Feinberg advocate for a teaching approach that "not only imparts knowledge but also fosters a personal and emotional connection to the history, ensuring that students understand the human impact of the Holocaust."

### **Holocaust Education and Military Training**

Holocaust education is particularly relevant in the context of military and defense training, as it underscores the vital importance of upholding human rights and ethical standards even in the most challenging circumstances. By studying the atrocities of the Holocaust, military personnel can gain a profound understanding of the consequences of blind obedience to authority and the dangers of dehumanization in warfare. This education fosters critical thinking and moral courage, essential qualities for military leaders who must navigate complex ethical dilemmas on the battlefield. Furthermore, it reinforces the commitment to the protection of civilian populations and the prevention of war crimes, aligning with the broader defense objectives of preserving peace and safeguarding human dignity.

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## Innovative Approaches to Holocaust Education

To begin with, it is crucial that students have access to accurate information about the Holocaust, starting with a historically precise definition of the event and correct usage of related terms. Engaging with primary sources is essential for helping students develop a more objective understanding of the Holocaust. However, a critical analysis of these sources is necessary, even when they originate from primary accounts. Many primary sources were created by the perpetrators themselves, so analyzing the motives and methods behind their creation enables learners to construct a meaningful understanding of this complex and deeply troubling period. Furthermore, Holocaust education should not be limited to mere facts and figures, as this would neglect the human dimension of the event. Conversely, presenting individual stories without providing a broader historical context can also be misleading. Incorporating diverse materials, such as literature, art, personal narratives, and film, can help students develop a more nuanced and balanced perspective. Understanding the historical context is vital as it illustrates that while Nazi persecution was deliberate, it was not inevitable (Polgar)

Moreover, studying the Holocaust often evokes intense emotions, necessitating careful reflection on one's thoughts and feelings. Students might experience a range of emotions such as helplessness, anger, and frustration. Recognizing and addressing these emotional responses can serve as a strong impetus for taking meaningful action in today's world. This emotional engagement can drive students to contribute to positive change in their current societies. Achieving this is possible only when students perceive the learning environment as both secure and engaging, and when they can relate their own identities and perspectives to the subjects being explored.

It should be mentioned that an interdisciplinary approach can stimulate students to engage in difficult conversations about history, the present, and the future. It can also motivate them to contribute to ensuring that the memory of people who were dehumanized in the past is preserved with dignity (Learning from the Past, Acting for the Future). The human rights perspective allows students to gain insight into the Holocaust by framing it through the lens of individual rights and justice. Rather than seeking simple answers, this approach encourages students to explore the deeper and more intricate aspects of the atrocity, helping them appreciate its complexity and understand the broader implications.

Integrating the Model of Competences for Democratic Culture with Holocaust teaching creates a powerful framework for fostering critical democratic values. This model emphasizes key competencies such as critical thinking, empathy, and intercultural understanding, which are crucial for comprehending the complexities of the Holocaust. By aligning Holocaust education with these competencies, students are not only equipped to grasp the historical and

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human dimensions of the Holocaust but also encouraged to reflect on and engage with democratic principles. This approach helps students develop a more profound sense of responsibility and commitment to preventing future atrocities, reinforcing their role as informed and active citizens in a democratic society.

To illustrate effective methods for teaching about the Holocaust, I want to highlight several impactful approaches. One particularly valuable method is **analyzing survivor testimonies**.

Individual stories help students understand history from a human perspective, rather than a political, societal, cultural, religious or other perspective. Using testimonies in teaching is not only a powerful way to remember survivors and victims of the Holocaust, but also to develop students' empathy and deeper understanding of the impact of unjust and inhumane actions. In history learning, testimonies are usually included towards the end of the educational process, as a way to supplement what was learned from history books, archives and other sources. The approach presented in this Handbook proposes a process that works the other way around: students start from an individual story and then carry out research in order to understand the more general social and historical context in which the story unfolded.

This activity involves students watching or reading firsthand accounts from Holocaust survivors to deeply engage with the historical reality of the Holocaust. Asia Raberman's video, which features her personal reflections and experiences, is an excellent resource for this purpose. Asia Raberman's video, which features her personal reflections and experiences related to the Holocaust, can be a valuable resource. The video provides a vivid, personal narrative that illuminates the human side of the Holocaust, offering students a chance to connect with the lived experiences of a survivor. Teachers can use the video to spark discussions, guide students in analyzing the emotional and historical content, and relate these experiences to broader themes of human rights and democracy.

Teachers can integrate Asia Raberman's video into lessons by first providing context about her background and the significance of her testimony. After watching the video, students can participate in structured activities such as:

- **Discussion:** Facilitate a discussion where students reflect on their emotional responses and analyze the key themes presented in the video. Encourage students to connect these themes to democratic principles, such as human rights and the importance of combating prejudice.
- **Reflection Essays:** Assign students to write reflective essays on how the video impacted their understanding of the Holocaust and its relevance to contemporary issues related to human rights and democracy.
- **Group Projects:** Have students work in groups to create presentations or projects that explore the broader implications of the Holocaust testimony. For example, they might

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investigate how survivor testimonies can influence contemporary human rights movements or educate about preventing future atrocities.

- **Critical Analysis:** Guide students in a critical analysis of the video, focusing on the narrative's authenticity, emotional impact, and the broader historical context. This helps students develop critical thinking skills and understand the complexities of historical narratives.

**Outcome:** Students gain a deeper emotional connection to the Holocaust through personal narratives, enhancing their understanding of the human dimension behind historical events. By relating these insights to democratic competences, such as empathy and critical engagement, students are better equipped to appreciate the significance of human rights and the importance of preventing future injustices. This approach encourages students to see the relevance of Holocaust education in fostering a more just and compassionate society.

I would like to highlight that Asia Raberman's testimony, along with many others, can be found on the educational platform **IWitness**. Developed by the USC Shoah Foundation, IWitness provides access to over 55,000 video testimonies of survivors and witnesses of genocides, including the Holocaust. This platform is a comprehensive educational tool that not only offers first-hand accounts of historical events but also integrates these powerful narratives into interactive activities, lessons, and projects. The platform's resources are designed to foster critical thinking, reflection, and discussions around human rights, social justice, and tolerance. With its user-friendly interface, multilingual accessibility, and a focus on both historical and contemporary issues, IWitness is an invaluable resource for educators and students alike, enabling a deeper understanding of history and its relevance to present-day challenges.

Another innovative method for teaching about the Holocaust is **Holocaust Through Video Games**. Video games have increasingly become a powerful medium for exploring historical events, including the Holocaust. Titles like "Call of Duty", "Wolfenstein", "My Memory of Us", "Through the Darkest of Times", "Tom Away", and "Company of Heroes" are notable examples that delve into various aspects of this complex history. These games, as products of popular culture, play a significant role in shaping both individual and collective understandings of the past. By engaging players in immersive narratives and interactive experiences, these video games offer unique insights into the Holocaust, making history accessible and impactful in ways that resonate deeply with contemporary audiences. This approach offers students an interactive and engaging way to explore historical contexts and experiences. By analyzing how the Holocaust is represented in these games, students can gain a deeper understanding of historical narratives and the ethical considerations involved.

To implement this activity, teachers can use a variety of methods:

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### Direct Methods:

- **Individual or Guided Gaming:** Allow students to play specific missions or scenarios from "Call of Duty" that relate to World War II. Provide them with guided questions or themes to focus on, such as the portrayal of wartime experiences and the moral dilemmas faced by characters.
- **Game Observation:** Organize sessions where students watch selected gameplay together. Facilitate discussions on the historical accuracy of the events depicted and how the game's narrative aligns with historical facts.
- **Commented Gaming:** Use a playthrough of the game where a teacher or guest speaker provides commentary on the historical context and its representation in the game. This method helps students connect the game's content to real historical events.

### Indirect Methods:

- **Videos of Gameplay:** Show recorded gameplay videos to highlight specific aspects of the game related to the Holocaust and World War II. Analyze these videos to discuss historical accuracy and representation.
- **Screenshots:** Use screenshots from the game to prompt discussions about visual representation and historical context. Analyze how the game depicts key events and settings.
- **Marketing Materials:** Examine trailers, wallpapers, and other promotional materials to understand how the game markets its historical content. Discuss the impact of these materials on the portrayal of historical events.
- **Gaming Journals:** Review and discuss articles or reviews that critique the game's historical representation. This can provide additional perspectives on the accuracy and impact of the game's content.

The aim of this activity is to engage students with historical content in an interactive manner, helping them explore and analyze the representation of the Holocaust in video games. This method encourages students to think critically about how historical events are portrayed in media and to understand the broader implications of these portrayals.

The outcome of this activity is that students will develop a deeper understanding of historical events and their representations. They will enhance their critical thinking skills by evaluating the accuracy and impact of video game narratives and gain insight into the ethical considerations of depicting historical events in interactive media. The outcome includes not only a deeper understanding of historical events and their representations but also the development of key democratic competences. Students enhance their critical thinking skills,



empathy, and respect for diversity while gaining ethical awareness and media literacy. These competences are crucial for fostering informed, responsible, and engaged citizens in a democratic society.

Another compelling method for teaching about the Holocaust is the **iWalk app**. The **iWalk app** is an innovative tool designed to enhance historical education through immersive, location-based experiences. By using augmented reality and GPS technology, iWalk provides users with interactive walking tours that bring historical events to life. For Holocaust education, the app can offer virtual tours of significant sites, such as former ghettos or concentration camps, allowing students to engage with history in a deeply personal and meaningful way. As users explore these locations, they encounter rich multimedia content, including survivor testimonies, historical documents, and contextual information, which helps to deepen their understanding of the Holocaust's impact. This method not only makes history more accessible and engaging but also fosters a stronger connection to the past by integrating educational experiences with real-world exploration.

**To integrate the iWalk app into classroom instruction, teachers can use it in several impactful ways:**

- **Pre-Lesson Preparation:** Teachers can assign the iWalk app as a pre-lesson activity, where students explore virtual tours of Holocaust sites before coming to class. This prepares them with foundational knowledge and context for deeper in-class discussions.
- **Guided Tours:** During class, teachers can guide students through specific virtual tours using the app. By focusing on particular sites or themes, teachers can lead discussions on the historical significance of each location, incorporating multimedia content and survivor testimonies provided by the app.
- **Project-Based Learning:** Teachers can use the iWalk app as part of project-based learning assignments. Students might create presentations or reports based on their virtual tours, analyzing the historical context, personal stories, and impact of the Holocaust sites they explored.
- **Interactive Discussions:** Following virtual tours, teachers can facilitate interactive discussions and debates based on the content students encountered. This encourages critical thinking and deeper engagement with the material.
- **Assessment and Reflection:** Teachers can use the app's content as a basis for assessments, such as essays or quizzes, and encourage students to reflect on their experiences and learning outcomes. This can be complemented with assignments that require students to connect their virtual experiences with historical facts and broader themes.

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Overall, the iWalk app provides a versatile and engaging tool for Holocaust education, enabling teachers to offer immersive, interactive learning experiences that enhance historical understanding, empathy, and critical thinking.

### **Relevance to Military Education**

Integrating Holocaust education into military training programs offers unique opportunities to instil ethical decision-making and a deep understanding of human rights among future military leaders. The use of innovative tools such as the iWalk app and historically accurate video games, as highlighted in this article, can provide cadets and soldiers with immersive experiences that go beyond traditional historical instruction. These methods allow military personnel to engage with the complexities of moral choices during conflict, drawing parallels between the past and the ethical challenges they may face in modern operations. By experiencing historical events like the Holocaust through interactive platforms, military trainees can develop a stronger sense of responsibility and a commitment to upholding international laws of war, ultimately leading to more ethically grounded and culturally aware armed forces.

### **Implications for Modern Defense and Security**

The application of Holocaust education in military contexts has significant implications for contemporary defense and security strategies. Understanding the catastrophic consequences of unchecked power and prejudice during the Holocaust can inform modern military conduct, particularly in preventing war crimes and ensuring the humane treatment of civilians in conflict zones. By incorporating these educational methods into their training, military institutions can foster a culture of accountability and respect for human rights, aligning with international humanitarian law. Moreover, the lessons learned from Holocaust education can contribute to the development of more effective and ethically sound military strategies, ensuring that the mistakes of the past are not repeated and that armed forces are better equipped to navigate the moral dilemmas of modern warfare.

## **CONCLUSION**

In conclusion, the seminars organized by LEPL National Centre for Teacher Professional Development of Georgia, the Education and Research Centre, and TOLI provided invaluable insights into Holocaust education. Attending these seminars has deepened our understanding of the significance of Holocaust teaching and introduced me to innovative and interdisciplinary methods that enhance student learning. Through approaches such as analyzing survivor testimonies, exploring Holocaust representations in video games, and using the iWalk app, educators can engage students in profound ways that foster empathy, critical thinking, and democratic competences. These methods not only make historical events more

relatable and accessible but also equip students with the skills and perspectives necessary to become informed and responsible citizens. We are grateful for the opportunity to have participated in these seminars and to share these effective teaching strategies, which underscore the vital importance of Holocaust education in promoting human rights and democratic values.

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## "RASHISM" - THE MYTH, OR THE NEW SEVERE, ESOTERIC CHALLENGE FOR EUROPEAN SECURITY?

Colonel Shalva Chubinidze<sup>1</sup>

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### ABSTRACT

A bloody war is going on in Ukraine, almost in the middle of Europe. In connection with the mentioned war, the term Rashism, which is an expression of Russian fascism, is mentioned more and more often in the world press and scientific societies. The purpose of the present study is to identify the mentioned issue and determine whether this concept is used only superficially, or if it actually has esoteric prerequisites and similarities with fascism and Nazism, which destroyed the whole of Europe, in the 20th century? For this purpose, taking into account the relevant experience, an analysis of the Russian propaganda system was carried out and a particularly important area for research was determined: the political-philosophical basis of propaganda - a set of doctrines developed by Alexander Dugin. Among the objects of research, the theory of "Noomakhia", presented by Dugin as a new philosophical direction, was especially important. The term "Noomakhia" means the "wars of minds". At the same time, was performed a content analysis of the materials, related to Dugin's political orientation and his interest in esoteric teachings, taken from the world's scientific and open media sources. After summarizing the obtained results, it was revealed that the main ideological vector of the modern Russian propaganda machine is aimed at the demonization of the so-called "collective West"; In this case, Dugin's political philosophy has a fundamental role. However, at the same time, the roots of Dugin's teachings are deeply rooted in occult, Nazi, and fascist, Nordic, pagan teachings. Based on the above-mentioned issues, it was concluded that Rashism is not a myth. It is just a serious threat to European and world security.

**Key words:** Rushism, Fascism, Nazism, Dugin's Political Philosophy, Noomakhia, Propaganda, Occultism

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<sup>1</sup> Student of Master's Program in State Recourse Management of LEPL-David Aghmashenebeli National Defence Academy of Georgia

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## INTRODUCTION

French journalists, Louis Pauwels, and Jacques Bergier published the book "The Morning of the Magicians", in 1960. Its main theme was the esoteric, occult ideology of the 3rd Reich. The authors argued that Adolf Hitler, his closest entourage, and almost all Nazi Party were obsessed with a kind of esoteric worldview, which eventually caused tens of millions of victims, unprecedented destruction, and social cataclysms not only in Europe but the whole world.<sup>2</sup> Although the above-mentioned book became an instant bestseller and was translated into many languages, it was described by Mircea Eliade, a great scholar of religion and specialist in occult traditions, as "a curious mélange (mixture) of popular science, occultism, astrology, science fiction, and spiritual techniques".<sup>3</sup> Nevertheless, time has shown that Bergier's and Pauwel's work was not baseless. Moreover, scientists from many countries consistently substantiated the occult roots of the Italian-fascist<sup>4</sup> or German-Nazi<sup>5</sup> regimes. At the same time, the high authorities of science warn us that the threat of sacralization of politics and turning it into a kind of religion is still a constant and dangerous reality not only in the authoritarian environment but even in the democratic world itself<sup>6</sup> (Gentile 2006); Moreover, as past experience shows, the possibility of subordinating the scientific field to these processes is also very real.<sup>7</sup> After all the above, it should be noted that during the ongoing bloody war in Ukraine, in the middle of Europe, the term "**Rashism**", which is used as an expression of Russian fascism, appears in the world media more and more often. **The present research examines whether the mentioned concept is used only superficially, for anti-Russian propaganda, to falsify Russian politics, or if it actually has esoteric prerequisites and similarities with fascism and Nazism, which destroyed the whole of Europe, at the beginning of the 20th century?**

British scientist, David Welch, an expert in propaganda and public relations, for a better understanding of National Socialism, performed a study of Nazi propaganda-specific aspects.<sup>8</sup> The same method is used in this work. The Content Analysis of data from open scientific sources and world media, related to the modern Agitprop system, will make it possible to enlighten some deep features of contemporary Russian politics.

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<sup>2</sup> Louis Pauwels, Jacques Bergier. 2009. The morning of the Magicians. Destiny Books.

<sup>3</sup> Eliade Mircea. 1976. Occultism, Witchcraft, and Cultural Fashions: Essays in Comparative Religion. London: The University of Chicago Press Ltd.

<sup>4</sup> , Emilio Gentile 1996. The Sacralization of Politics in Fascist Italy. Harvard University Press.

<sup>5</sup> Richard Steigmann-Gall, 1999. The "Holy Reich": Religious Dimensions of Nazi Ideology, 1919-1945. National Library of Canada.

<sup>6</sup> Gentile. 2006. Politics as Religion. Princeton University Press.

<sup>7</sup> Hans Kelsen, 2012. Secular religion: a polemic against the misinterpretation of modern social philosophy, science, and politics as 'new religion'. Springe.

<sup>8</sup> David Welch, 1983. Nazi Propaganda: The Power and the Limitations. Taylor and Francis.

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## MAIN PART

The term “Propaganda” apparently comes from the Latin name of the organization created in 1622 by the Roman Catholic Church: "Congregatio de Propaganda Fide".<sup>9</sup> As a political tool, it was mentioned in Vladimir Lenin's work "What Is to Be Done?", which was first published separately in 1902), and was associated with the term "**agitation**".<sup>10</sup> The new term, "**Agitprop**" ("agitation-propaganda"), was formed in Soviet reality<sup>11</sup> (Smith 1999). Though the propaganda machine's most terrifying and unbelievable results were demonstrated during the Nazi regime in the Third Reich, real conceptual development and transformation, even into nowadays actual fields of "public relations" and applied sociology, “Propaganda” had undergone in the United States, in the early 1910s, by such great scientists and public figures as Walter Lippmann (1889-1974), Paul Lazarsfeld (1901-1976), and Edward Bernays (1891-1995) were. Edward Bernays' book "Propaganda" is a classic of the above-mentioned spheres. The current Russian System of "**Agitprop**" inherited the accumulated knowledge, experience, and methods of all its predecessors.

In the present research, the Kremlin Propaganda System is divided into five layers:

1. **I layer** – “On Battlefield Level” - the most superficial level
2. **II layer** – “Mass-Media level”
3. **III layer** – “Military Experts’ level”
4. **IV layer** – “Scientific level”
5. **V layer** – “Philosophy level” – the deepest level of the System.

Each of them requires a detailed discussion, but the purpose of this work is to cover the deepest layer of the system - **The political philosophy** that underlies the contemporary Russian "**Agitprop**" – because, as it will be shown, this sphere has a cardinal influence on all the upper components. Also, **the special interest of the research is to clearly show where the mentioned philosophy takes its roots.**

In this case, it should be discussed the metaphysical doctrine "Noomakhia", developed by Alexander Dugin, a famous propagandist, historian, and political philosopher in Russia. The term "Noomakhia" was coined by himself. In the ancient Greek language, it means "wars of minds". This cycle of books includes up to 24 volumes. Dugin has the ambition to establish an

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<sup>9</sup> Lannes B. Smith, 1999. Propaganda. July 26. Accessed November 15, 2023. <https://shorturl.at/eBN58>

<sup>10</sup> Vladimir Lenin, 2008. What Is to Be Done. Accessed November 16, 2023. <https://shorturl.at/iuFG6>

<sup>11</sup> Lannes B. Smith, 1999. Propaganda. July 26. Accessed November 15, 2023. <https://shorturl.at/eBN58>

alternative to traditional philosophy.<sup>12</sup> However, after listening to his lectures, anyone will be convinced that we are dealing with an ideological theory based on religious mysteries.

Dugin's "Noomakhia" is built on the principles of the so-called "3 Logos". In his understanding, "Logos" is the basis of worldview, which characterizes both, - an individual person and various micro-social and macro-social associations, including nations.<sup>13</sup>

He separates the logos of **Apollo, Dionysus, and Cybele**.<sup>14</sup> After that, he determines the civilizations and the nations, carrying each of these logos. According to him, the historical past and subsequent destiny of each nation are determined by their inclination to a certain Logos:

- The Logos of "**Apollo**" - is the logos of "Great Father", "Olympus", and "spiritual, vertical consciousness". It is a "**Bright Logos**";<sup>15</sup>
- The Logos of "**Cybele**" - is the Logos of "Great Mother", Underworld, "Hades", and "Material Consciousness". It is a "**Black Logos**";<sup>16</sup>
- According to Dugin, the logos of "**Dionysus**", is the intermediate concept between them, having a connection with both, - to Olympus (heaven) and to Hades (underworld). The Logos of Dionysus is the "**Dark Logos**", though **not black** - this is the important aspect<sup>17</sup>.

The main aspects of Dugin's ideology are related to the eternal struggle between the logos of Apollo and Cybele:

- The carriers of the "Apollo Logos" are Indo-European ethnicities, nomadic, militant, conqueror people who originated in the central and southern regions of Eurasia; The conspicuous representatives were the ancient Hellenes; Nowadays, the "Logos of Apollo" is most strongly expressed in the Slavic ethnos;<sup>18</sup>
- As an exemplary representative of "Cybele Logos" nations, Dugin considers the Pelasgians, the inhabitants of the archaic age of the Balkan Peninsula, whom the Indo-European Hellenes conquered. According to him, the logos of "Cybele" includes all the ethnic groups

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<sup>12</sup> Александр Дугин. 2019 -1. Беседы о Ноомахии (1). Введение в Ноомахию. Ум как война. Accessed November 15, 2023. <https://shorturl.at/bijG1>

<sup>13</sup> Александр Дугин, 2019 - 2. Беседы о Ноомахии (2). Три Логоса. Обнаружение Кибелы. Accessed November 15, 2023. <https://shorturl.at/eflvH>

<sup>14</sup> Александр Дугин, 2019 - 2. Беседы о Ноомахии (2). Три Логоса. Обнаружение Кибелы. Accessed November 15, 2023. <https://shorturl.at/eflvH>

<sup>15</sup> Александр Дугин, 2019-3. Беседы о Ноомахии (3). Логос Аполлона - Небесный Патриархат. Accessed November 15, 2023. <https://shorturl.at/nwBU7>

<sup>16</sup> Александр Дугин, 2019 -5. Беседы о Ноомахии (5). Логос Кибелы. Нигилистическая метафизика Демокрита. Accessed November 15, 2023. <https://shorturl.at/euyGS>

<sup>17</sup> Александр Дугин, 019 - 4. Беседы о Ноомахии (4). Логос Диониса. Феноменология центра. Accessed November 15, 2023. <https://shorturl.at/bgwSX>

<sup>18</sup> Александр Дугин, 2014. Ноомахия: войны ума. Три Логоса: Аполлон, Дионис, Кибела. Москва: Академический Проект



of Anatolia, the Caucasus, the Mediterranean, and Western Europe, which followed an indigenous, agricultural way of life. The vast majority of these people disappeared into the Indo-European "Apollo logos" people. Some Caucasian ethnos, like Georgians, Chechens, or Basks in Europe can be considered as Cybele logos people nowadays;<sup>19</sup>

- **Dugin's most important ideological postulate is that:** despite the victory of the “Apollo people” over the “Cybele People”, it was historically difficult to defeat the Cybele Logos's material, matriarchal spiritual roots and worldviews, itself. **Over time, these roots and worldviews successively arose again and spread in the "Apollonian" conquering people, causing them to "degenerate".**<sup>20</sup>

According to the above-mentioned, reviewing European history, he concludes that the fate of the Western European people developed in the same direction of degradation, after the late Middle Ages when the Lutheran and Calvinist Reformations in Christianity began and the Cartesian era came in philosophy and science. All this was followed by the so-called "Enlighteners", the French Encyclopedists. Finally, a materialist, modernist, matriarchal, "Cybele Civilization" had been established in the "West".<sup>21</sup>

With Noomakhia cycle, there are lots of his other monographs, articles, interviews, conference speeches, and videos-monologues, which are distinguished by one sharply defined narrative: **Western liberal civilization is a dark, corrupt, hellish, “satanic” civilization, and the sacred mission of the "Russian World" is to stand up against it.**<sup>22</sup> (Дугин 2023 - 1)

During the Scientific and practical conference “Nazism in Ukraine: a view through the prism of a special military operation”, one of his replicas Dugin finished with the phrase: "In order to effectively fight fascism, as our president (Putin) says, we have to be well aware of the satanic essence of Western civilization".<sup>23</sup>

In this sentence from the Russian Ideologist, **the components of the modern Russian ideological trends are well-shown:**

1. The **Patron** of the campaign - **President Putin's** administration;
2. The **Adversary** - “**Collective West**”;

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<sup>19</sup> Александр Дугин, 2014. Ноомахия: войны ума. Три Логоса: Аполлон, Дионис, Кибела. Москва: Академический Проект

<sup>20</sup> Александр Дугин, 2021. Мечь, отложенная на 1000 лет. Как сложилась одна из главных цивилизаций Европы. Accessed November 15, 2023. <https://shorturl.at/adqKX>

<sup>21</sup> Александр Дугин, 021. Мечь, отложенная на 1000 лет. Как сложилась одна из главных цивилизаций Европы. Accessed November 15, 2023. <https://shorturl.at/adqKX>

<sup>22</sup> Александр Дугин, 2023 - 1. Философ и общественный деятель Александр Дугин: «Сатанизм — как постановка материи над духом». Accessed November 15, 2023. <https://shorturl.at/fBDE0>

<sup>23</sup> Александр Дугин. 2023 - 2. Дугин: надо осознать сатанинскую сущность современного Запада, тогда мы победим. Accessed November 15, 2023. <https://shorturl.at/etFV8>

3. The **Strategy - Demonization** of the “Collective West”- (literally);
4. The **Main Message - Russia is in a Holy War against Western Satanism and Fascism.**

The “Noomakhia” is just a war instrument, developed by Dugin.

The next very important expression from Dugin is the following: “Noomakhia - on the one hand, is **an aspiration to give the theory of a multi-polar world a systematic basis**, and on the other hand, it is **an activity aimed at obtaining and protecting the sovereignty of the soul**”.<sup>24</sup>

With this sentence, he clarifies two main directions of his "struggle": The Political and The Esoteric.

Dugin’s political narratives are built on the basis of the terms like “**Great Russia**”, “**Russian World**“, “**Greater Eurasia**”, and “**Multipolar world**”. Where do these concepts come from? According to Russian historian Andrei Zubov, the ambitions of the “Russian Empire’s greatness” and the “Russian Nationalism”, take their roots from the so-called “Slavophiles” – the political-philosophy association of 19<sup>th</sup> century’s beginning;<sup>25</sup> The other above-mentioned terms (“**Russian World**“, “**Greater Eurasia**”, and “**Multipolar world**”) are intellectual products of the first “Evrazists” – politicians in the Russian emigration in 1920<sup>th</sup>.<sup>26</sup>

For presented research especially interesting are the beginnings of Dugin’s esoteric ontology. As it was found out, there are lots of scientific works and media articles, dedicated to this subject. It is no longer a secret that Dugin was deeply fascinated by occult, magical, and alchemical doctrines and practices.<sup>27</sup> As a member of the Soviet underground occultist group “Yuzhinsky Circle”, he shared the esoteric teachings available in this organization, which were divided into two main groups: “**Traditionalism**” (René Guénon (1886-1951), Julius Evola (1898-1974)) and **Völkisch Occultism** (People’s Occultism – Eng.) (Guido von List (1848-1919), Herman Wirth (1885-1981) and others). These years have dapple influenced Dugin’s mentality and further activities.<sup>28</sup> He was particularly influenced by the works of Hermann Wirth, which he got for study with the help of his father, a KGB officer, in the archives of this organization<sup>29</sup> (Лихачев 2002) He dedicated special works to Wirth’s inventions, like the book - “Signs of the

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<sup>24</sup> Александр Дугин, 2019 -1. Беседы о Ноомахии (1). Введение в Ноомахию. Ум как война. Accessed November 15, 2023. <https://shorturl.at/bijG1>

<sup>25</sup> Андрей. Зубов, 2020. История Западной философии. Лекция №35. «Философия в России: славянофилы и западники». January 28. Accessed November 16, 2023. <https://bit.ly/3ulBLV2>

<sup>26</sup> Савитский, Совчинский, Фларовский, Трубецкой. 1921. Исход к Востоку. Sofia: Balkan

<sup>27</sup> Andreas Umland, 2010. Aleksandr Dugin's Transformation from a Lunatic Fringe Figure into a Mainstream Political Publicist, 1980–1998: A Case Study in the Rise of Late and Post-Soviet Russian Fascism. Vol. 1(2). Journal of Eurasian Studies.

<sup>28</sup> Jafe Arnold, 2019. Mysteries of Eurasia: The Esoteric Sources of Alexander Dugin and the Yuzhinsky Circle. Amsterdam: University of Amsterdam.

<sup>29</sup> Вячеслав Лихачев, 2002. Рассизм в России. Панорама. <https://shorturl.at/bwCIK>

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Great Nord - Hyperborean Theory”<sup>30</sup> (Дугин 2008), and the article – “Herman Wirth: the sacred proto-language of humanity. In search of the holy grail of meanings“.<sup>31</sup>

There must be a little bit told about **Herman Wirth's** personality. He was a Dutch-German historian, **Nazi ideologist**, member of the **National Socialist German Workers' Party** and **Schutzstaffel**, known best - as **SS**. Wirth was co-founder of “**Ahnenerbe**” – the pseudo-scientific organization into **SS**.<sup>32</sup>

How did Dugin manage to bind Nordic Nazism to the Great Eurasian theory and to the Great Russia concept? This becomes clear through his above-mentioned work, “Herman Wirth: the sacred proto-language of humanity. In search of the holy grail of meanings”, in the last chapter of which - "The Secret Word of Tatar"- he claims that Hermann Wirth regretted not having the access to carry out an archaeological study of the Siberian spaces in order to complete his concept. Dugin also relies on the words of the Swedish philosopher, theologian, and mystic, Emanuel Swedenborg, that the ancient knowledge, the so-called "lost word", "Parole Delassee", must be found „between the “wise men of Tartaria”. That means - here with as, in our mysterious and great Russian-Tatar Fatherland. But we can open this Word only with the help of sacral polar knowledge.”<sup>33</sup>

How influential is Dugin's ideology in Russia and in the World? According to specialists from different countries, Dugin’s influence is really significant:

- on public opinion,
- on the system of secondary and higher education,
- and even on the narratives of the highest political and religious hierarchies.

In international media, Dugin has been called: “Putin’s Brain”<sup>34</sup> (Barbashin Anton, Thoburn Hannah 2014), “Putin’s Rasputin”<sup>35</sup> and “Kremlin Guru”.<sup>36</sup> He is evaluated as “the most dangerous philosopher in the world”<sup>37</sup> and as “the best-marketed of all Russian ideologists, both in Russia and in the West.”<sup>38</sup>

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<sup>30</sup> Александр Дугин. 2008. Знаки Великого Норда - Гипорборейская Теория. Москва: Вече.

<sup>31</sup> Александр Дугин, 2002. "Герман Вирт: священный праязык человечества. В поисках Святого Грааля смыслов." *Философия Традиционализма* 135-166. <https://shorturl.at/yDL04>

<sup>32</sup> Horst Junginger,. 2013. "Nordic Ideology in the SS and the SS Ahnenerbe." *Civilization and History* N24 39-69.

<sup>33</sup> Александр Дугин, 2002. "Герман Вирт: священный праязык человечества. В поисках Святого Грааля смыслов." *Философия Традиционализма* 135-166. <https://shorturl.at/yDL04>

<sup>34</sup> Anton Barbashin, Hannah Thoburn. 2014. Putins Brain. *Foreign Affairs*.

<sup>35</sup> Scan MacComac, 2015. Alexander Dugin: Putin's Rasputin? *Center for Security Policy*

<sup>36</sup>Goce Trpkovski, 2018. ""Kremlin 'Guru' Rouses Anti-Western Feeling in Macedonia." *Balkan Insight*

<sup>37</sup>, Paul Ratner, 2016. "The Most Dangerous Philosopher in the World." *Big Think*.

<sup>38</sup> Laruelle. 2018. Alexander Dugin and Eurasianism. Oxford: Oxford University Press.

Dugin is the founder of the “International Eurasian Movement”, which has 33 representative offices in 17 countries of the world. Experts note Dugin's special influence on right-wing political forces operating in many countries of the world.<sup>39</sup>

Some strategic characteristics of the ongoing war in Ukraine are sharp proof of Dugin's Geopolitical Concepts' influence on modern Russian politics: Dugin published his book, “Foundations of Geopolitics” in 1997.<sup>40</sup> In chapter 4.4.-“The problem of sovereign Ukraine”, of the book's 5th part, named “Domestic Geopolitics of Russia” (“domestic”!), is told – “The sovereignty of Ukraine is such a negative phenomenon for Russian geopolitics that, in principle, it can easily provoke an armed conflict... Ukraine as an independent state with some territorial ambitions poses a huge danger to the whole of Eurasia, and without solving the Ukrainian problem, it makes no sense to talk about continental geopolitics”; Moreover, in chapter 5.6.-“Geopolitical Decomposition of Ukraine”, Dugin represents the plan of fragmentation of Ukraine: **“The continued existence of unitary Ukraine is unacceptable (!). This territory should be divided into several zones corresponding to the gamut of geopolitical and ethnocultural realities:**

1. **Western Ukraine (belongs to Central Europe)<sup>41</sup>;**
2. **Malo-Russia (so-called “Little Russia” - left bank of the Dnieper)<sup>42</sup> - now occupied by Russia;**
3. **The right bank of the Dnieper (regions facing Great Russia)<sup>43</sup> - now partially occupied by Russia;**
4. **Crimea (“an independent pro-Eurasian formation”)<sup>44</sup>– now occupied by Russia.**

It's clear, that after such obvious strategic geopolitical aspirations of the “Russian World” ideologists and its Patrons, declared even yet in 1997, there is no need to talk about Ukrainian traces of the war causing and about Ukrainian Fascism. Also, **it must be considered, that the above-discussed book was dedicated as a manual for the Russian Army's General Staff Academy's education programs.**

Dugin has very well organized the education system for wide-spreading his Eurasian political philosophy and Noomakhia. He has huge support not only in Russian media but from different intellectual associations as well. A good example of this is the **“United Movement - Russian Philosophy”**. Exactly for this organization, and with its assistance, he has recorded the cycle of video lectures on Noomakhia. Now this Movement organizes a wide range of

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<sup>39</sup> Tara Isabella Burton,. 2022. "The far-right mystical writer who helped shape Putin's view of Russia." The Washington Post, May 12.

<sup>40</sup> Александр Дугин, 2000. Основы Геополитики. АРКТОГЕЯ-центр.

<sup>41</sup> Александр Дугин, 2000. Основы Геополитики. АРКТОГЕЯ-центр.

<sup>42</sup> იქვე.

<sup>43</sup> იქვე.

<sup>44</sup> იქვე.

activities to propagate Dugin's Noomakhia and Eurasian Political Philosophy across the whole Russia.

Before drawing conclusions, it is necessary to summarize the above-presented discussion in relation to the 5 layers of the modern Russian Propaganda System (as the "Agitprop" is identified in the present study):

- The Russian government and its special services state their demands on political ideology - in this case, an anti-Western course, in which anti-Western is equated with anti-fascist;
- A corps of scholars analyze Western scientific and political material and presents it according to a pre-planned scheme: Collective West is going to establish a new world order, "Post Capitalism", a "caste society", where the Elites will have unlimited power; but for others, - "**digital slavery**", "**Eco-Bio fascism**" and so on; the way to "western fascism"<sup>45</sup> (Фурсов 2021) - IV layer of Agitprop - **Scientific level**;
- Military experts represent the war in Ukraine as the Liberation battle of Russia against the entire NATO bloc, which will win anyway - III layer of Agitprop - **Experts level**;
- Russian media is mobilized for hard brain-washing of the population, whose relatives are sent to the battlefield and who can be mobilized next with the main message: "**The "collective West" created the "anti-Russia" – Ukrainian Nazism, and now it is necessary to fight again (!) in a "holy war" against fascism, for the homeland, and for the "reunification of the Russian and Ukrainian nations"**"<sup>46</sup> (Putin 2021)- II layer of Agitprop - **Mass-Media level**;
- The people sent directly to the front are encouraged to believe that they will profit by looting the conquered territories of the fascist State – Ukraine,<sup>47</sup> - The most superficial, I layer of Agitprop – **On-battlefield level**;
- All this is based on Alexander Dugin's political philosophy of Noomakhia, Great Eurasia, and a Multipolar World, and all the above levels dominate two main principles that emerge as a common feature: The aspiration to demonize the collective West and the presentation

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<sup>45</sup> Андрей Фурсов, 2021. Великое обнуление. О чём проговорились Клаус Шваб и Герман Греф. Андрей Фурсов. February 2. Accessed November 16, 2023. <https://shorturl.at/aQTWZ>

<sup>46</sup>Vladimir Putin, 2021. On the Historical Unity of Russians and Ukrainians. May 12. Accessed November 16, 2023. <https://shorturl.at/bjWZ8>

<sup>47</sup> Daria Demianik, 2023 . Choose the city of your dreams. September 19. Accessed November 16, 2023. <https://shorturl.at/ntzI8> ; Omoleky, Matthew. 2023. The Cohesion of Error: Russia's Rationales for War. October 2. Accessed November 16, 2023. <https://shorturl.at/oqrwZ>

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of Russia as the very only power, capable to stand against this satanic force in a holy war. –  
The deepest, V layer of Agitprop – **Philosophy level;**

- But there are very special circumstances that turn upside down the World-vision that the Russian propaganda system tries to establish: **Dugin's ideology and the roots of its sacred doctrine of "Noomakhy" originate from the depths of Nazi, Nordic, pagan occultism.**

### CONCLUSION

Based on all of the discussed above, it is clear that Europe and Western democracy are facing severe danger from Russia. European history well knows the cruelty and horror of religious wars. World scholars have proven, that even WWII was driven by occult, sacral politicians. The materials presented in this research prove that the regime currently rolling Russian politics is also waging an irrational, sacralized war in Ukraine. **R A S H I S M is not a myth! It is a hard existential reality not only for European security but for the whole humanity.**

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## HYBRID WAR, ITS ESSENCE AND SPECIFICITY

Zurab Samkharadze, <sup>1</sup> Givi Sanadze, <sup>2</sup> Ramaz Chichua<sup>3</sup>

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### ABSTRACT

In the paper, the hybrid war is considered as an exclusively geopolitical phenomenon, which is not defined as a whole in the paradigms of other studies. In the article, the problem is studied within the methodology of geopolitical realism. The author believes that the essence of hybrid war is a set of actions aimed at destroying all the main geopolitical spaces of the opposing society, that is, its absolute destruction, carried out simultaneously in all main types of geopolitical spaces. The paper identifies the main technologies of hybrid warfare and its main actors. The author expresses his point of view on the ways of struggle, which is carried out through acts of hybrid war against the state.

**Keywords:** war, hybrid war, hybrid war participants, hybrid war

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<sup>1</sup> Chief researcher of the Scientific Center of LEPL - David Aghmashenebeli National Defence Academy of Georgia, Candidate of Military Sciences

<sup>2</sup> Professor of Bachelor's program in Mechanical Engineering of LEPL David Aghmashenebeli National Defence Academy of Georgia, Candidate of Technical Sciences

<sup>3</sup> Invited specialist of Bachelor's Program of, LEPL-David Aghmashenebeli National Defence Academy of Georgia

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## INTRODUCTION

According to V.I. Dahl's dictionary (first edition, 1863–1866), the essence of the phenomenon of "war" is defined as follows: <sup>4</sup> "war, discord and military struggle between states, international insult". S.I. Ozhegov talks about this concept in more detail and in a different way, in his explanatory dictionary (first edition - 1949). According to him :<sup>5</sup> "war is an armed struggle between states or populations or between classes in a state".<sup>6</sup> In the dictionary-reference book of political sciences published in 2008, we read: "War is an armed conflict in the process of conflict resolution, a form of political conflict resolution using violence." <sup>7</sup> As we can see, unlike the 19th and 20th centuries, in our century, war is usually called an armed solution to political conflicts of any nature.

It should be noted that during the last quarter of a century, the noun "war" has been constantly overloaded with adjectives that change at a fairly high speed: asymmetric, preventive, networked, network-oriented, non-linear, non-contact, indirect, unconventional, informational, psychological, proxy war, chaos - War and finally the hybrid. A large variation of adjectives and the invariance of the noun "war" indicates a high degree of conflict in society, both at the global, regional and local levels of functioning.

What is the reason for the increase of social and interstate conflicts? In our opinion, there are several reasons:

1. Due to the disappearance of the world socialist system, the problem of redistribution of the post-socialist and post-Soviet space between the victorious powers in the Cold War (1946-1991) arose, which determined the high level of conflict in a number of "large regions" (Eastern Europe, the Central Asian region, the Middle East, South- East Asia, North and Central Africa);
2. In order to maintain monopolistic global leadership, the United States tries to stop the development of regional superpowers, by promoting separatism and terrorism in their territory, involving these states in "low-intensity conflicts", organizing "color revolutions" and "humanitarian interventions;" <sup>8,9,10</sup>.

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<sup>4</sup> <https://slovardalja.net/> (ссылка: 04.11.2024).

<sup>5</sup> <https://slovarozhegova.ru/> (ссылка: 04.11.2024).

<sup>6</sup> Толковый словарь Ожегова онлайн. Война. URL: <http://slovarozhegova.ru/word.php?wordid=3653> (дата обращения: 15.05.2017).

<sup>7</sup> Погорелый Д. Е., Филиппов К. В., Фесенко В. Ю. Политологический словарь-справочник. Война [Электронный ресурс]. URL: <http://www.studfiles.ru/preview/2427088/page:6/> (дата обращения: 17.05.2017).

<sup>8</sup> Перкинс Дж. Тайная история американской империи. Экономические убийцы и правда о глобальной коррупции. М., 2008.

<sup>9</sup> Сетевые войны: угроза нового поколения. М., 2009.

<sup>10</sup> Фридман Дж. Следующие сто лет: Прогноз событий XXI века / пер. с англ. А. Калинина, В. Нарницы, М. Мацковской. М., 2010.

3. The "welfare state" of Western countries, formed during the struggle between the two systems. Also, their competition in the field of social protection is gradually losing its positions, which causes discontent among some sections of the population. (migrants, the "new poor")<sup>11, 12</sup> and attempt to organize mass riots, demanding the return of full-scale forms of social protection.

### MAIN PART

In the last decade, another reason has been added to all of this. This is one of the main factors in the emergence of the phenomenon of hybrid wars: for example, the transition modern Russia to the status of a great power and its attempts to return to its former controlled spaces, which currently already have other "owners".<sup>13</sup>

The concept of hybrid warfare has been used since 2001, when this type of warfare was first mentioned in the English-language scientific literature.<sup>14</sup> Since the middle of the first decade of the current century, the term "hybrid war" has been constantly used in the works of such English-language authors as: Frank Hoffman, David Kicullen, Bill Nemeth, John McCuen, Nathan Frayer, Prashant. Parameswaran. Hybrid war is understood by these authors as a combination of regular and irregular forms of war.<sup>15</sup> Irregular war in this case refers to operations carried out by terrorist organizations. Thus, both states and non-state structures are recognized as hybrid war actors.<sup>16</sup>

In the scientific literature, the interpretation of hybrid warfare is much more extensive.<sup>17</sup> The field of hybrid confrontation covers all major areas of public life. At the same time, researchers of this problem, who offer definitions of the concept of "hybrid war", give exclusively descriptive definitions and list in detail the signs of hybrid war in various segments of public life.

In our opinion, K. Clausewitz implied the term "Hybrid Warfare" in all studies. He considered the term as a continuation of politics by other means. However, it seems that the positioning of hybrid warfare as a phenomenon that belongs exclusively to the realm of politics

<sup>11</sup> Мартъянов В. Кризис социального государства и городской креативный класс // [Электронный ресурс]. URL: <http://svom.info/entry/631-krizis-socialnogo-gosudarstva-i-gorodskoj-kreativny/> (дата обращения: 20.05.2017).

<sup>12</sup> Попова Е. А. Кризис социального государства: причины и пути выхода [Электронный ресурс]. URL: <http://human.snauka.ru/2012/01/492> (дата обращения: 21.05.2017).

<sup>13</sup> Комлева Н. А. Контракция российского геополитического пространства: основные техно логии преодоления // ИНИОН РАН — Россия: ключевые проблемы и решения [Электронный ресурс]. URL: <http://www.rkpr.inion.ru/inion/items.html?page=2&category=103&kind=100002298> (дата обращения: 23.06.2017).

<sup>14</sup> McGregor Knox and Williamson Murray, Eds. The dynamics of Military Revolution 1300 2050. Cambridge, Cambridge University Press, 2001. 175

<sup>15</sup> Frank G. Hoffman. Conflict in the 21-th Century: the Rise of Hybrid Wars. Arlington, VA: Potomac Institute for Policy Studies, December 2007 [Electronic resource]. URL: [www.potomacinstitute.org/images/stories/publications/potomac\\_hybridwar\\_0108.pdf](http://www.potomacinstitute.org/images/stories/publications/potomac_hybridwar_0108.pdf) (accessed: 26.05.2017).

<sup>16</sup> ојзз.

<sup>17</sup> Гибридные войны» в хаотизирующемся мире XXI века / под ред. П. А. Цыганкова. М., 2015.

is illegitimate, and therefore it produces numerous definitions of existential meaning without ending up with the formulation of a definition of the essential. In our opinion, hybrid warfare is an exclusively geopolitical phenomenon that is not fully defined in other research paradigms.

Hybrid war is a set of actions aimed at destroying all the main geopolitical space of the opposing society, i.e. its absolute suppression. At the same time, aggression is carried out simultaneously in all major types of geopolitical space.

In this article, the authors consider that the main geopolitical spaces are: geographical, economic, informational-ideological and informational-cybernetic. In each type of geopolitical space, the methods of conducting hybrid warfare differ according to the nature of that type of space.

The main methods of conducting hybrid war in geographical space:

1. Local "traditional" wars in the resource regions of the country, which is the target of aggression, the involvement of the given country in a series of "low-intensity conflicts" on the border perimeter;
2. "Color revolutions", i.e. coup d'état in the target country of aggression and its geopolitical allied states;
3. Encouraging separatism in the target country of aggression.

All of the above technologies are used in modern states.

Late 90s - early 2000s. Western countries and their allies, Middle Eastern countries (Saudi Arabia, Jordan, United Arab Emirates). Attempts to implement a "Daisy revolution" in the Russian Federation were recorded in 2003-2008, as well as in 2012 ("White Ribbon Movement"). "Color revolutions" occurred in Serbia, Ukraine (twice), Georgia ("Rose Revolution") and Kyrgyzstan.

The main methods of conducting hybrid warfare in the economic space:

1. Sanctions against the object of aggression against certain sectors of the country's economy, including closing international markets (or their separate segments) and blocking access to certain technologies;
2. Sanctions against all sectors of the economy of the country targeted by aggression (economic blockade);
3. Sanctions against key individuals who determine the content and course of economic processes in the country targeted by aggression.

There are also personal sanctions against the country's leading politicians, bankers and industrialists.

The main methods of conducting hybrid war in the information-ideological space:

1. Replacement of traditional values and/or replacement of values of a given society with dominant ideological constructs and/or replacement with dominant ideological constructs of another society;
2. Target of aggression - falsification of the country's history;
3. Desacralization of the prophets, main personalities and main tenets of the main religions of the country targeted by the aggression;
4. Implantation and/or encouragement of decivilized social practices: debauchery, violence against the weak and helpless, drug addiction, incest, family and economic crimes.

The main methods of conducting hybrid warfare in cyberspace:

1. expulsion of the software products and cybernetic technologies of the country targeted by the aggression from the world and/or regional markets;
2. The target country of aggression - hacking attacks on the country's economic and political institutions.

These hybrid warfare methods are used in our country as well, although to be fair it should be noted that our ICT (Information and Communication Technologies) market did not have a large volume. According to studies if we talk about the ratio of military and non-military technologies used within the framework of hybrid warfare, today this ratio is 1: 4 in favor of non-military types of war.

In our opinion, the participants of the hybrid war are states, global and transnational corporations, interstate and supranational institutions, as well as non-governmental organizations. The peculiarity of hybrid warfare in the field of behavior is that there are no moral or legal deterrents for the aggressor actors in this war. The main thing is the result (the destruction of the opponent's geopolitical space), and not the observance of moral or legal norms. Almost all hybrid warfare researchers emphasize the above mentioned feature.

In our opinion, the conscious non-compliance with moral norms is caused by the state of psychological bitterness of a specific geopolitical actor, which, in turn, is caused by the real danger of losing the existing geopolitical status with the inherent capabilities, cumulative power and expansion resources of this status. Today, that "specific geopolitical actor" is the United States.<sup>18,19,20,21</sup> therefore, in part, the US Army's operational concept, "Winning in a Complex World 2020-2040," suggests that the US Army is ready to engage in hybrid warfare,

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<sup>18</sup>Бьюкенен П. Смерть Запада / пер. с англ. А. Башкирова ; послесл. А. Столярова. М. ; СПб., 2003.

<sup>19</sup> Сорос Дж. Мыльный пузырь американского превосходства. На что следует направить американскую мощь : пер. с англ. М., 2004.

<sup>20</sup> Уткин А. И. Подъем и падение Запада. М., 2008.,

<sup>21</sup> Фридман Дж. Следующие сто лет: Прогноз событий XXI века / пер. с англ. А. Калинина, В. Нарницы, М. Мацковской. М., 2010.

<sup>22, 23</sup>, and one of the publications on the website of the NATO magazine «NATO Review magazine» contains a statement: "The term "hybrid warfare" ... has been adopted by almost all major military powers and has become the basis of modern military strategy ... which includes regular and irregular warfare, traditional and non-traditional tactical methods".<sup>24</sup> However, non-military sources, unlike military sources, contain a broader understanding of hybrid warfare. In particular, the Australian electronic magazine "The Diplomat" defines the structure of this type of war as follows: use of conventional weapons, irregular war methods, terrorism, use of criminal practices, non-violent actions, information operations, economic, financial and subversive political actions.

The above-mentioned methods of conducting hybrid war actually includes the involvement of non-traditional structures as fighters of private military companies, illegal armed groups of a terrorist nature, organized criminal structures (primarily drug cartels), radical-extremist opposition, subversive mass media, subversive non-governmental organizations.

How can we resist enemy attacks within the framework of hybrid warfare? Let us cite the advice of the now unpopular politician Mao Zedong (1893–1976), given, for a slightly different reason: <sup>25</sup> "Act with the tip against the tip." This is a condensed verbal formula for dealing with hybrid threats.

In a more detailed form and in relation to modern conditions, this recommendation is as follows:

In the military field: to ensure balanced development of all types and branches of troops (forces), to master high-precision weapons and modern means of communication, intelligence, automatic control and radio-electronic warfare; to increase the mobility of forces and assets in order to regroup troops to conduct long-range operations, to respond quickly and decisively to conflicts, the non-linear nature of which allows significant results to be achieved with relatively small disruptions.<sup>26</sup>

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<sup>22</sup> ამავე დროს, AOC ამტკიცებს, რომ ჰიბრიდული ომი მოიცავს „ტრადიციულ საინფორმაციო ოპერაციებს, ელექტრონულ ომს (EW) და კიბერ ომს ჰიბრიდული ომის მნიშვნელოვანი კომპონენტებია“, როგორც მნიშვნელოვანი კომპონენტი.

<sup>23</sup> The US Army Operating Concept (AOC): Win in a Complex World 2020-2040. 7 October 2014 [Electronic resource]. URL: <http://www.tradoc.army.mil/tpubs/pams/TP525-3-1.pdf> (accessed: 27.06.2017).

<sup>24</sup> Hybrid war — does it even exist? URL: NATO Review magazine [Electronic resource]. URL: <http://www.nato.int/docu/Review/2015/Also-in-2015/hybrid-modern-future-warfare-russia-ukraine/EN/> (accessed: 30.05.2017).

<sup>25</sup> ჩინეთის სახალხო რესპუბლიკის თავმჯდომარე 1954–1959 წლებში, ჩინეთის კომუნისტური პარტიის თავმჯდომარე 1943–1976 წლებში.

<sup>26</sup> Бартош А. Гибридная война становится новой формой межгосударственного противоборства // Военное обозрение. 9 апреля 2017 г. [Электронный ресурс]. URL: <https://topwar.ru/112955-gibridnaya-voyna-stanovitsya-novoy-formoy-mezhgosudarstvennogo-protivoborstva.html> (дата обращения: 15.05.2017).



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In the non-military sphere: to provide the ability to rapidly focus critical efforts and resources on the most threatened location. Today it is the fronts of informational and economic warfare and it needs to ensure the cyber security of critical infrastructure; to have continuous intelligence production and close interaction with political and force command structures in order to create and exploit an advantage in a threatened direction; To ensure the presence of high-quality specialists who can ensure the development and implementation of a strategy for combating hybrid warfare; to develop a strategy for counter-hybrid warfare; to establish a pre-post state system of hybrid war against the leadership and the population; to create units in the structure of special operations forces and special services in order to conduct informational and psychological operations; to develop national legislation oriented against hybrid warfare technologies, primarily against "coup d'état"; to identify diagnosing and blocking the activities of negative communicators who try to undermine the informational sovereignty of the state; to monitor the blogosphere and social networks in order to block negative information aimed at promoting extremism and terrorism, ethnic and inter-religious hatred; to block all channels (financial, informational, organizational) and structures of foreign and oligarchic support of the radical and extremist opposition; To deepen the exchange process of information and international cooperation with strategic military-state partners, in the financial-economic and information-psychological fields, in order to take the necessary measures to identify and repel security threats.

The legal aspect of hybrid war is characterized as follows: it is impossible to use the modern norms of international law that define the concept of "aggression" in hybrid war. In such a war there is no "front line" or "back line". This circumstance creates great difficulties for the "target state" to overcome hybrid attacks directed at it.

In order to create an international legal base for the fight against hybrid wars, it is necessary to develop a legally precise definition of the essence of hybrid war and the basic forms; Also it is necessary to consistently comply with existing international conventions on humanitarian law and the protection of cultural monuments during hostilities as well as develop new international legal documents against hybrid warfare methods in each specific type of geopolitical space.

## CONCLUSION

Systematic and targeted neutralization of hybrid warfare operations against the state requires the creation of a new organizational structure (Bureau of Counter-Hybrid Warfare). A similar structure already exists in the United States. This is the Hybrid warfare resistance bureau,<sup>27</sup> which was established in December 2015 and has the official status of a public

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<sup>27</sup> Панарин И. Н. Гладиаторы гибридной войны // Экономические стратегии. 2016. № 2. С. 60–65.

organization.<sup>28</sup> It is interesting, but this organization does not have its own website on the Internet, it publishes its information exclusively on social networks.

In any case, only defensive actions and reacting to the opponent's moves will not be effective and they can not lead to the desired result. Therefore, there is a need not only for a response strategy to hybrid wars from the West and Europe (a constantly delayed response leads to delays and losses), but also proactive actions. In this case, it is important to remember the so-called Liddell-Hart "The goal of war is to achieve a better state of the world after the war, at least from your point of view. Therefore, during the war, it is important to always remember what kind of peace you want."<sup>29</sup> In our opinion, in order to win the hybrid war, first of all, you need to have a "grand project", that is, a conceptual and systematic representation of the foundations of the new world order, which will be built on other principles of the world, not on the current one. However, the existing alternative of a global project by itself is not enough, even if it is developed in detail. For its implementation, it is necessary to have an equally well-developed mechanism including resources, actors, technologies. A systemic threat requires a systemic response.

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<sup>28</sup> <https://www.nato.int/natostaticf2014/assets/pdf/2024/7/pdf/241007-hybrid-threats-and-hybrid-warfare.pdf> (წდომი: 04.11.2024).

<sup>29</sup> Лиддел-Гарт Б. Стратегия непрямых действий. М., 2008.

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## RISK MANAGEMENT AS A DETERMINING FACTOR IN THE EFFECTIVENESS OF INNOVATION MANAGEMENT

Givi Duchidze<sup>1</sup>

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### ABSTRACT

Innovations are a key factor in competitiveness but are accompanied by risks such as technological failures and unpredictable market reactions. Effective risk management helps organizations minimize threats, stimulate creativity, and maintain long-term success by ensuring a balance between innovation and risk.

This study analyzes the relationship between risk management and innovation management effectiveness. By evaluating how organizations can balance innovative efforts with the need for risk management, the paper emphasizes the importance of implementing risk management strategies to enhance innovation outcomes. Special attention is given to how risk management helps companies make strategic decisions, build an innovation culture, and effectively cope with challenges in competitive and market instability conditions.

Risk management in the context of innovation plays a crucial role in the successful implementation of innovation projects. Innovations, by nature, are associated with uncertainty and risks that can significantly affect their success. The risk management process includes identifying, assessing, mitigating, and monitoring various types of risks—technological, financial, market, and organizational. This process helps organizations not only minimize potential threats but also effectively leverage opportunities arising from these risks. The article discusses key stages of risk management and how they can be integrated into innovation processes to ensure the successful implementation of projects and achieve long-term growth and competitive advantages.

**Keywords:** risk management, innovation, competitive advantage, technological innovations, financial strategies, partnership approaches, risk reduction, disruptive technologies, risk management strategies, new opportunities, overcoming risks, industrial changes, market volatility, organizational growth.

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<sup>1</sup> Professor of Bachelor's program in Management of LEPL David Aghmashenebeli National Defence Academy of Georgia

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## INTRODUCTION

In a rapidly changing business environment, innovation is not only a tool for growth but also a fundamental factor for the competitiveness and sustainability of organizations. The acceleration of globalization, combined with technological advancements and constant changes in market dynamics, has significantly altered the ways businesses operate and interact with stakeholders. Companies must now be more flexible, adaptable, and forward-thinking to stay ahead. However, with new opportunities come new threats and challenges that can significantly impact an organization's long-term success.

Innovation opens up new pathways for growth, efficiency, and market leadership, allowing organizations to stand out among competitors. Innovations can take various forms, including new products, services, technologies, or business models. Despite their potential to create value, innovations are inherently tied to risks. The process of developing and implementing new ideas involves a significant degree of uncertainty. Each phase— from idea generation to development, testing, and market launch— is fraught with challenges such as technological failures, financial losses, and unpredictable market reactions. Additionally, investments in financial resources, human capital, and time for new initiatives expose the organization to various risks, including failure to achieve desired results, inefficient resource allocation, or even the inability to meet customer expectations.

Given these risks, risk management becomes a critical element of the broader innovation management framework. Risk management is a systematic approach to identifying, assessing, and minimizing the risks associated with innovation. Effective risk management helps organizations protect themselves from potential failures while stimulating creativity, strategic decision-making, and long-term success. Risk management does not aim to eliminate all risks but helps organizations understand the uncertainties they face and develop strategies to manage them effectively.

An organization that successfully manages risks is better equipped to support innovation. Through proper risk management practices, companies can ensure that their innovation processes are well-structured, strategic, and adaptable. Risk management allows organizations to identify potential obstacles early in the innovation process and create contingency plans, thereby reducing the likelihood of failure and increasing the chances of success. Moreover, it allows for the effective allocation of resources, ensuring that investments in innovation projects are balanced with potential returns. In this way, organizations can undertake bold and transformative innovations while managing risks in a way that minimizes disruptions to overall business operations.

Furthermore, effective risk management enables organizations to adapt to market changes and industry disruptions. In an environment where market conditions can shift quickly, the ability to anticipate potential risks and respond swiftly is crucial. Innovation and risk management do not exist independently of one another; they are interconnected and reinforce each other. While innovation drives business growth, it is through effective risk management that organizations can unlock the full potential of innovation, achieving long-term sustainability in the process.



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The goal of this paper is to explore the complex relationships between risk management and innovation management effectiveness. By analyzing how organizations can balance the need for innovation with the necessity of risk management, the paper will demonstrate how companies can implement effective risk management strategies to maximize innovation outcomes. Using a combination of theoretical models and practical examples, the research will provide insights into the role of risk management in fostering an innovation culture, how risk management influences strategic decision-making, and how organizations can navigate the complexities of innovation in a competitive business environment. Ultimately, the goal of this work is to show that risk management, integrated into the innovation management process, is not just a protection against potential failures but an important factor for an organization's success.

### MAIN PART

Innovation management is a key function for organizations striving to maintain their competitiveness in a rapidly changing business environment. It represents a systematic approach to managing innovation throughout its lifecycle—from the initial idea phase to development, implementation, and commercialization. This process includes both the creative generation of new ideas and the strategic implementation of those ideas into tangible products, services, or solutions that contribute to achieving organizational goals. The primary goal of innovation management is to ensure that these processes not only align with the strategic objectives of the organization but also foster competitive advantage, market leadership, and long-term growth.

Effective innovation management is a complex, multifaceted undertaking involving several key stages. The first step is idea generation, during which creative processes and brainstorming sessions are used to identify new opportunities, technologies, or approaches that could disrupt existing markets or create entirely new ones. After the idea generation phase comes the research and development (R&D) stage, during which these initial ideas are further explored, refined, and developed into viable concepts. Significant efforts are spent on technical and market validation during the R&D phase to ensure that the ideas can be scaled into products or services that meet customer needs.

Next comes the prototyping phase, where a basic version of the product or service is created to assess its feasibility, functionality, and design. This stage helps organizations identify potential flaws or areas for improvement before investing significant resources into full-scale production. After prototyping, the testing phase follows, which is crucial as the innovation undergoes rigorous testing in real-world conditions to assess its performance, reliability, and readiness for market launch. If testing is successful, the innovation moves to the market launch phase, where it is introduced to the target audience.

However, while the innovation process is structured and strategic, it is also fraught with uncertainty and challenges. The path from idea generation to market launch is rarely linear, and each stage is associated with risks that can derail the entire process. For example, at early stages of innovation, technological risks may arise if the core technology proves unviable or



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fails to meet expected standards. Financial risks are also inherent in the process, particularly in the R&D and prototyping phases, where investments are substantial and outcomes uncertain. Moreover, even after an innovation is launched, market rejection risks remain, as customers may not accept or adopt the new product or service as expected.

Despite these risks, the potential benefits of innovation are immense. Successful innovations can lead to increased market share, improved operational efficiency, enhanced customer satisfaction, and a strengthened brand reputation. Nevertheless, organizations must recognize that innovation inherently involves a degree of uncertainty and risk. Therefore, organizations must carefully balance the need to foster creativity and bold ideas with the necessity of effectively managing risks to avoid failure. This is where risk management plays a critical role in innovation management.

Risk management in the innovation process is crucial for organizations to navigate the complexities and uncertainties associated with developing new products. By identifying potential risks early in the process, organizations can take proactive steps to mitigate these risks and prepare contingency plans. Risk management frameworks help organizations prioritize risks based on their likelihood and potential impact, enabling leaders to allocate resources effectively and make informed decisions throughout the innovation lifecycle.

For example, technological risks can be reduced through thorough research, external collaboration with technology experts, or investing in pilot testing to validate new concepts before full development. Financial risks can be addressed by ensuring sufficient funding, creating flexible budgeting models, or using phased investments, where funds are allocated based on the achievement of specific milestones. Market risks can be minimized by conducting in-depth market research and using consumer feedback to refine the product offering before the official launch.

Moreover, innovation management must remain aligned with the organization's broader strategic goals. While fostering creativity is crucial for generating breakthrough ideas, it is equally important that innovations align with the company's core values, objectives, and long-term goals. This strategic alignment ensures that the innovation process does not become a series of fragmented efforts but contributes meaningfully to the company's growth trajectory. Effective innovation management allows companies to strike a balance between exploring new opportunities and adhering to their overarching business strategy, ultimately leading to sustainable competitive advantage.

In conclusion, the importance of innovation management cannot be overstated in today's competitive and volatile business environment. Organizations that excel at managing innovation are better positioned to identify new opportunities, differentiate themselves from competitors, and adapt to changing market conditions. However, the risks associated with innovation require careful management, which is why risk management is an integral part of the innovation management process. By fostering a culture that supports creativity while also addressing and mitigating potential risks, organizations can ensure that their innovation efforts contribute to long-term success and growth.

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In a rapidly changing business environment, risk management is more important than ever. It enables organizations to prepare for both internal and external disruptions—from market fluctuations and technological failures to shifts in consumer behavior or regulations. A strong risk management strategy provides companies with the necessary tools and processes to navigate uncertainty, protect valuable resources, and ensure long-term growth. Thus, risk management is essential for maintaining operational stability, making informed decisions, and fostering innovation.

The risk management process typically involves several sequential steps, each aimed at addressing different aspects of risk and uncertainty. These steps are crucial to ensuring that risks are properly understood and mitigated, allowing innovations to progress without unnecessary obstacles.

1. **Risk Identification:** The first step in risk management is identifying potential risks. For innovative projects, risk identification involves a comprehensive analysis of factors that may hinder the success of the innovation. These risks can arise from various sources, such as:

- **Technological Risks:** This could involve the failure of new technologies or the innovation not working as expected.
- **Financial Risks:** This includes the possibility of exceeding the budget, low return on investment, or insufficient funding to bring the innovation to market.
- **Market Risks:** Changes in consumer demand, shifts in market trends, or unexpected competitive pressures may threaten the commercial success of the innovation.
- **Organizational Risks:** Internal issues such as resistance to change, lack of alignment between departments, or high leadership turnover may undermine efforts to implement innovation.

Identifying these risks early allows the organization to be proactive rather than reactive, addressing potential issues before they derail the innovation process.

2. **Risk Assessment:** Once risks have been identified, the next step is to assess their probability and potential impact on the innovation process and the broader goals of the organization. Risk assessment involves analyzing each identified risk based on:

- **Likelihood of Occurrence:** What is the probability that the identified risk will materialize during the innovation process?
- **Impact on Goals:** What would the consequences be if the risk occurs? Could it delay the innovation timeline, lead to financial losses, or hinder the successful implementation of the project?

The goal of this phase is to prioritize risks based on their severity and probability, allowing the organization to focus resources on managing the most critical risks that could have the greatest impact on the success of the innovation.

3. **Risk Mitigation:** After risks have been assessed and prioritized, the organization must develop strategies to mitigate or eliminate their potential impact. Risk mitigation involves creating a plan to address the most important risks, such as:

- **Diversification:** For financial or market risks, the organization may choose to diversify its innovation portfolio by spreading investments across different products, services, or technologies to minimize the impact of failure in one area.
- **Agile Project Management:** Using flexible or adaptive project management methods allows adjustments and adaptations to be made during the innovation process, helping to manage uncertainties more effectively.
- **Collaboration and Partnerships:** Collaborating with external experts or stakeholders can reduce technological risks and provide access to additional resources, knowledge, or expertise.
- **Prototyping and Testing:** To reduce technological risks, organizations can use an iterative approach, including creating prototypes, testing them with the target audience, and refining the innovation based on feedback before full-scale implementation.

These strategies aim to either eliminate risks, reduce their likelihood, or minimize their consequences, allowing the innovation project to continue moving in the right direction.

4. **Monitoring and Review:** Risk management is an ongoing process that requires continuous monitoring and review. Even after initial risk mitigation strategies have been implemented, the risk landscape may change over time. New risks may emerge, and existing risks may change in severity. Therefore, it is necessary to regularly track risks throughout the innovation process and adjust risk management strategies as needed. This may involve:

- **Regular Risk Assessments:** Periodically reviewing and updating the risk profile of the innovation project to account for changes or new circumstances.
- **Feedback:** Gathering feedback from team members, stakeholders, and customers to identify emerging risks or issues that require attention.
- **Adaptive Strategies:** Adjusting the approach to innovation based on testing results, market feedback, and changes in external conditions to ensure the project's viability and success.

By maintaining vigilance in monitoring and reviewing risks, organizations can stay ahead of potential problems, adapt quickly, and minimize the impact of unforeseen challenges. The main goal of risk management in innovation is not to eliminate all risks, but to understand and manage them effectively. The nature of innovation is inevitably tied to uncertainty and experimentation, which makes guaranteeing success impossible. However, by identifying risks at an early stage, assessing their potential impact, and implementing effective risk mitigation strategies, organizations can navigate these uncertainties with greater confidence.

Innovation and risk management are closely interconnected. Innovation, by its very nature, involves stepping beyond the known, often exploring new technologies, markets, and

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business models. It is an inherently risky process that requires organizations to take calculated risks in order to achieve breakthrough results. Without effective risk management, organizations may either limit their potential by avoiding risks or, on the other hand, expose themselves to catastrophic failure by undertaking overly ambitious projects without proper risk mitigation strategies.

Risk management plays a crucial role in helping organizations balance the need for innovation with the necessity of controlling negative consequences. By identifying and eliminating risks at early stages of the innovation process, risk management allows organizations to move forward with new ideas while ensuring that the risks are manageable. Rather than stifling creativity or innovation, risk management creates an environment in which innovations can develop under controlled conditions. For example, organizations may choose more conservative approaches in certain areas, such as new technologies or emerging markets, while taking a more aggressive stance in areas with more predictable risks.

Effective risk management is essential for successfully navigating the complex landscape of innovation. It helps prioritize innovation projects by assessing the likelihood of their success or failure and developing tailored strategies for risk reduction.

Innovation management involves various forms of risks, and understanding these risks is key to effectively managing them. The risks in innovation management can be conditionally divided into four main categories: technological, financial, market, and organizational risks. Each type of risk requires individual strategies and approaches to minimize their impact on the innovation process.

1. **Technological Risks:** Technological risks are among the most significant in innovation management. These risks arise from the possibility that new technologies may not function as expected or that a technology may become obsolete before it can be fully commercialized. Other technological risks include incompatibility with existing systems or failures in scaling up. For example, a product might rely on a new technology that has not proven its reliability or does not meet the claimed specifications, leading to delays or costly rework. In some cases, technological risk is also associated with an overestimation of what is technologically possible at the moment, which leads to unachievable goals and loss of resources.
2. **Financial Risks:** Financial risks are inherent in any innovation project, especially during the research and development (R&D) phase. Innovation often requires significant investments in research, development, infrastructure, and talent acquisition. Financial risks may arise from budget overruns, unforeseen expenses, or insufficient funding to complete the project. Furthermore, there is a risk that the return on investment (ROI) may not meet projections, leading to substantial financial losses for the organization. Companies may also face challenges in securing funding or in convincing investors of the potential value of the innovation.
3. **Market Risks:** Market risks are associated with the uncertainty about how a new product, service, or innovation will be perceived in the market. Even if the innovation is technically perfect, there is no guarantee that consumers will accept it. The market may not respond positively, or demand may not meet expectations. Market risks are particularly difficult to

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assess because they often depend on factors such as customer preferences, competitor behavior, and shifts in market trends, many of which are hard to predict. A new product may be well-designed but fail to gain popularity due to improper market positioning, wrong targeting, or underestimating customer needs.

4. **Organizational Risks:** Organizational risks arise from internal factors that can affect the success of an innovation project. These risks may include issues with coordination between departments, lack of leadership or management, or failure to develop and implement a comprehensive innovation strategy. Organizational risks also include internal resistance to change, lack of support from key stakeholders, or misalignment of innovation efforts with the broader strategic goals of the organization. In some cases, organizations may fail to allocate sufficient resources or fail to create an innovation culture that encourages experimentation and risk-taking.

Each of these risk categories requires specific management approaches. For example, technological risks may require thorough testing, validation, and collaboration with external technology experts. Financial risks can be managed through careful budgeting, staged investments, and diversifying funding sources. Market risks can be mitigated through market research, customer feedback, and prototype testing or pilot launches. Organizational risks can be reduced by fostering collaboration, developing clear leadership, and ensuring that the innovation strategy is well-communicated and supported at all levels of the organization.

## CONCLUSION

To effectively manage the risks associated with innovation, organizations must implement strategies that integrate risk management into the innovation process. Some of the most effective innovation risk management strategies include:

1. **Diversification of Innovation Projects:** One of the key ways to reduce risks is through the diversification of innovation projects. Instead of investing all resources into a single high-risk project, organizations can spread their investments across several projects with varying degrees of risk. This approach allows organizations to test different concepts and technologies simultaneously, increasing the likelihood that at least one innovation will succeed. Furthermore, diversification minimizes the consequences of failure in one project, ensuring the organization is not overly dependent on a single outcome.
2. **Agile Project Management:** Agile methodologies focus on flexibility, adaptability, and iterative development. In the context of innovation, agile project management allows organizations to quickly identify and respond to risks as they arise. By breaking down innovation projects into smaller, more manageable phases, companies can assess progress more frequently and make adjustments as necessary. Agile practices also emphasize collaboration and customer feedback, enabling rapid product adaptation and improvement, which helps mitigate risks in the early stages.
3. **Collaborative Innovation:** Collaborative innovation involves partnerships with external organizations—such as research institutions, technology companies, or startups—to share the risks and resources associated with developing new products or services. Collaborative

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innovation allows companies to leverage external expertise and access new technologies or research that may be unavailable within the organization. Additionally, partnerships help distribute financial and technological risks, making the innovation process more resilient and less risky.

4. **Scenario Planning and Sensitivity Analysis:** Scenario planning is a strategic tool that allows organizations to forecast various potential outcomes and develop strategies for each possible scenario. This approach helps identify potential risks and uncertainties, preparing the organization for various events. Sensitivity analysis, on the other hand, involves identifying key variables that could impact the success of an innovation and testing how different scenarios might affect the viability of the innovation. By using scenario planning and sensitivity analysis, organizations can develop action plans to minimize risks and increase the chances of success.

Risk management strategies, organizations can better navigate the uncertainties inherent in the innovation process. These strategies allow organizations to approach innovation with confidence while minimizing potential negative consequences. Ultimately, a comprehensive approach to risk management increases the likelihood of success for innovation initiatives and their alignment with the organization's long-term goals. minimize market risks, organizations need to conduct thorough market research and maintain strong relationships with consumers to understand their needs and preferences. Testing concepts through pilot programs or prototypes can help assess market readiness. Additionally, a flexible marketing strategy and the ability to quickly adapt to feedback or market trends are crucial for maintaining competitiveness in dynamic markets.

The relationship between risk management and innovation management is complex but vital for the success of any organization striving to remain competitive in a rapidly changing market. Innovation is inherently linked to risk, and managing these risks is essential for long-term success.

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## POSITION OF GEORGIA AND INFLUENCE OF KARABAKH CONFLICT ON REGIONAL SECURITY

Khvicha Khozrevanidze, <sup>1</sup> Giorgi Tsatsiashvili<sup>2</sup>

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### ABSTRACT

In 2020, the conflict between Azerbaijan and Armenia broke out again in Nagorno Karabakh. Consequently, there were a number of battles due to worsening situation. Both sides try to get military advantage by getting their “allies” involved into the battle.

A level of Importance of neighbor states’ positions into that conflict was too high, especially Russian Federation and Turkey who were concerned as sides of conflict. Those two states were actively involved with political and military power in Karabakh’s war.

Result of this war was vitally important to South Caucasian states’ regional security and future in general.

There was an assumption if the war had continued for a long, South Caucasus would have become a hot spot in region. Also, it’s being considered that situation was tensioned in the Middle East as well which might have had affected on situation in our region.

As I mentioned above, besides Armenia and Azerbaijan there were two neighbor countries Turkey and Russia, considered as conflict sides. They were trying to take advantage in that conflict and spread their influence in region more. It must be underlined that Russia got a good chance to re-activation in Caucasian region. For that Karabakh war was one of the best chances. However Turkey’s position was counter wise and against Russia’s will to get more influence over Caucasus. Turkey had its own interests in Region and tried hard to use this conflict to weaken Russia’s positions and spread its own.

It’s important to mention that Georgia’s position as a neutral state was quite different from involved countries; therefore, Georgia’s interests were different from Turkey’s and Russia’s goals. Personally for Georgia, Russia’s influence is a huge disadvantage because RF has occupied more than 20% of Georgia.

Georgia came up many times with a message to cease fire and solve conflict peacefully.

**Keywords:** Karabakh, conflict, hostilities, treaties, states, region and problem.

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<sup>1</sup> Chief of Staff of the Cadet Training Battalion of the National Defense Academy, Doctor of Political Science.

<sup>2</sup> Senior Combat Training Officer of the 1st Infantry Brigade, Headquarter S-3. Master of Business Organization and Management

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## INTRODUCTION

### **There is a blue background behind the text which should be removed**

Armenia-Azerbaijan conflict is not a new phenomenon. It originates even before the collapse of the Soviet Union. The conflict spanned three decades of ethnic conflict between the two Soviet republics, And then it turned into a protracted conflict between two independent countries, which created a serious threat to the security of the South Caucasus region. There are three sovereign states in this region (Georgia, Azerbaijan and Armenia), which have territorial conflicts. It should be noted that the territorial problem is one of the important factors in the existence of conflicts. Neighboring ethnic groups differ sharply from each other in their culture, religion, language and political orientation. Therefore, we can say that these conflicts have a political, ethnic, economic, ideological and territorial character. The Kremlin, which is still actively involved in the ongoing political processes in the South Caucasus, has played a big role in creating the conflict situations in the South Caucasus region. The conflicts in this region are united by one of the factors that, unfortunately, none of them could be resolved so far and they remain "frozen conflicts" to this day. It is a fact that peace talks related to "frozen conflicts" do not give the desired results.

The goal of the conflicts in the South Caucasus, specifically between Armenia and Azerbaijan, is to regain control of the Russian Federation in the region. He uses different means for this. Among them is the soft power policy, which is one of the good levers for managing "frozen conflicts". The political and economic situation created in the South Caucasus gave the Russian Federation the impetus to use "soft power" to activate the Karabakh conflict, but this conflict also turned into military actions. The Karabakh conflict ended with concrete results based on certain agreements, but the conflict remained unresolved.

## MAIN PART

### **The beginning of the Karabakh conflict**

The Karabakh conflict started even during the Soviet Union, in the region inhabited by ethnic Armenians on the territory of Azerbaijan - Nagorno-Karabakh. Ethnic Armenians demanded separation from Azerbaijan and reunification in the Republic of Armenia. On December 1, 1989, the Supreme Council of Soviet Socialists of Armenia made a decision on the accession of the Nagorno-Karabakh Autonomous Region to Armenia. The Republic of Armenia has taken upon itself the implementation of the security policy of this region. This action was followed by an appropriate response from the side of Azerbaijan, permanent demonstrations began, which soon turned into mass violence. The central government of the Soviet Union tried to resolve the conflict. At the beginning of 1990, a state of emergency was introduced in Nagorno-Karabakh and the regions bordering Iran, and later in the city of Baku.

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The next stage of this process was the entry of Soviet troops into the conflict zone, but the actions of the collapsing Soviet empire were not enough to resolve the conflict.

The years 1988-1991 can be considered a "relatively peaceful" period of this conflict.

After the collapse of the Soviet Union at the end of 1991, Azerbaijan and Armenia regained their independence. During this period, Baku revoked the status of the Nagorno-Karabakh Autonomous Region, and on December 10 of the same year, the people of Nagorno-Karabakh held a referendum independently of Azerbaijan and declared the whole of Nagorno-Karabakh as an independent republic. From this period, large-scale military operations begin between Azerbaijan and Armenia in Karabakh.

After the collapse of the Soviet Union, both countries received a large amount of weapons and military equipment from the military bases of the local Soviet Union. As for the military generals, in this regard, Armenia had a more experienced management team than Azerbaijan, which was reflected in the combat tactics and the course of military operations. In 1994, Armenia won the war. He established control over 7 districts besides Nagorno-Karabakh, including the Lachin Corridor (this is a strategic territory from the political and economic point of view). The first phase of the conflict was concluded in May 1994 by the "Biscuit Protocol" signed between the representatives of Armenia, Azerbaijan, the unrecognized Republic of Nagorno-Karabakh and the Russian Federation.

The government of Azerbaijan did not adapt to the unfavorable situation created in Karabakh, which led to certain political and military confrontations. In connection with this, the OSCE Minsk Group (1994) tried to solve the mentioned problem. OSCE representatives offered both sides a certain plan for solving the issues related to the solution of the problem, which was firmly rejected by both the Armenian and Azerbaijani sides. At the same time, US representatives were also involved in solving the Karabakh conflict, but the fact is that the problem still remains to be solved.

Apart from that, the leaders of Armenia and Azerbaijan clashed several times regarding the Karabakh conflict, but they could not reach a consensus. The fact is that both countries had begun to prepare for the coming war, albeit with different ambitions and objectives. Azerbaijan has gradually made progress in terms of military development compared to Armenia. He invested a lot of money to buy modern weapons and military equipment. At the same time, he trained the combat units and increased their fighting ability.

The hostilities, which were suspended in 1994, were renewed on a large scale in the spring of 2016, which lasted for 4 days. Both sides used all available means for military operations. This military conflict is known as "April War".

This is considered to be a kind of intelligence-based combat operations for planning future military operations. Again, the conflict was stopped, not resolved, through neighboring

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countries and international organizations. "Frozen conflict" was acceptable to the Russian Federation, which is used as necessary in terms of strengthening its political influence in the South Caucasus.

### **A new confrontation for Nagorno-Karabakh**

Long-term peace in the South Caucasus and the balance of power depend on several major geopolitical players. Mainly these players are: USA, Russian Federation, Turkey, Iran and European Union. Recently, Azerbaijan correctly assessed the political situation in the region before starting new military operations: Economic problems in Russia and Putin's possible departure from power, Russia dissatisfied with the policy pursued by the government of Armenian Prime Minister Nikol Pashinyan and the US presidential elections, which weakened attention to the region. Turkey's unconditional support to Azerbaijan was also added to this.

The military escalation between Armenia and Azerbaijan, which began on September 27, 2020, clearly showed us that the ongoing conflict has an international character and has gone far beyond that. From the beginning of the military clashes, the parties to the conflict announced full mobilization. Military aviation, drones, heavy artillery, ballistic missiles and others were used during the conflict. There was also a place for online information warfare and propaganda, which is characteristic of the new war model.

Azerbaijan, fully supported by Ankara, demonstrated its military superiority soon after the start of hostilities. He was trying to confuse his opponent. Azerbaijan developed combat operations on the entire front, because the advance did not concentrate on a specific direction and did not mobilize forces in one direction. On the Armenian side, the northern and central directions were well fortified, both from the terrain and from the quality of the military forces deployed there. Nevertheless, he was still forced to change his plan in light of his opponent's actions. The Azerbaijani side soon gained the upper hand in the northern direction. They practically blocked the Lachin alternative highway (Vardenis-Martakert M11), thus limiting the Armenian side from maneuvering in the rear and using the logistical opportunity. As for the central direction, mainly the artillery confrontation was going on between the warring parties, maneuver elements were not involved in the fighting. The Azerbaijani side focused on the territory along the Iranian border, which made it possible to create a springboard in the direction of the Lachine corridor.

After the establishment of this bridgehead, the Lachine Corridor was attacked and soon regained control of this corridor. The hostilities took place with the advantage of the Azerbaijani side. With "exhausting distance warfare" and high-precision weapons, they were able to neutralize the Armenian forces on the defensive. In our opinion, Azerbaijan was able

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to defeat the enemy by controlling the airspace (including unmanned aerial vehicles) and artillery superiority.

It should be emphasized that the city of Shusha, in Nagorno-Karabakh, was decisive in both the first and second wars. Proof of this is that in 1992, the loss of Shusha by Azerbaijan became a prerequisite for the loss of the war. And in 2020, it became the key to his victory. After the first war, the glass was leveled to the ground. The Azerbaijani population fled from there. Now the Armenians have left the city.

The aforementioned military operation, i.e. the second Karabakh war, lasted 44 days. Various parties were involved in the settlement of this conflict, among them the Minsk group was very active, which, as we have already mentioned, was created precisely because of this conflict.

The ceasefire between Armenia and Azerbaijan took place with the intervention of the OSCE Minsk Group, which was created to resolve the Nagorno-Karabakh conflict. The active intervention of the Russian Federation in solving this problem, and the agreement reached between Armenia and Azerbaijan in this way, left the Western countries in a sidelined position, and opened the way for Russia to act in the South Caucasus.

### **The position of the Georgian side**

We will highlight separately the position of Georgia during the Second Karabakh War. As we mentioned above, major geopolitical players were involved in this war.

including the neighboring countries of the South Caucasus. Their positions and the degree of involvement have already been discussed in the mentioned article. Now we will focus on the position of Georgia. It should be noted that Georgia has always acted as a mediator in the Karabakh conflict, because maintaining peace in the South Caucasus region is vital for our country. For Georgia, which aspires to join the European Union and NATO, it is unacceptable to strengthen the political influence of the Russian Federation in the South Caucasus, one of the favorable moments of which is the involvement of this country in the Karabakh conflict. During the second Karabakh war, as in the previous period, the Georgian side urged the warring Armenian and Azerbaijani sides to sit down at the negotiating table and resolve the conflict through dialogue. The ongoing combat operations in Nagorno-Karabakh in 2020 clearly showed that Russia has been given a favorable situation for strengthening its political influence in our region. This is an undesirable situation for Georgia. In the end, the situation turned out in such a way that the solution of this problem was mainly due to the activity of the Russian Federation. Despite this, the interrupted military operations established peace in the region.

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## CONCLUSION

After the collapse of the Soviet Union, conflicts were not alien to the post-Soviet countries. Among them are the countries of the South Caucasus region. Unlike Armenia and Azerbaijan, Georgia has internal territorial conflicts.

As for Armenia and Azerbaijan, the territorial conflict between them began before the collapse of the Soviet Empire and continues to this day. Various circumstances contributed to the intractability of this conflict. One of these circumstances is the Russian factor.

The presence of the "frozen conflict" in our region helps this country, because it also has the opportunity to revive the frozen conflict at any time in order to strengthen its weakened political influence in the South Caucasus. A good example of this is the second Karabakh war, which Russia used well.

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## MATHEMATICAL MODEL FOR IMPROVING SECURE COMMUNICATION AND EFFICIENCY IN WANET NETWORK

Nani Arabuli,<sup>1</sup> Vladimer Adamia,<sup>2</sup> Kamal Namazov<sup>3</sup>

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### ABSTRACT

Wireless Ad Hoc Networks (WANETs) are decentralized, dynamic networks that operate without fixed infrastructure, making them essential for scenarios like disaster recovery, military applications, and mobile IoT. However, their flexibility comes with significant challenges, including security vulnerabilities and resource inefficiencies. Addressing these challenges requires a holistic approach that balances robust security with operational efficiency.

This thesis introduces a novel mathematical model designed to enhance secure communication and improve the efficiency of WANETs. By integrating lightweight cryptographic techniques with dynamic routing algorithms, the model mitigates key vulnerabilities while optimizing performance metrics such as throughput and latency. Simulation results validate the model's effectiveness, demonstrating improved network resilience against attacks, reduced power consumption, and enhanced communication reliability. This research contributes to the foundational understanding of secure and efficient WANET operation, paving the way for further advancements in this critical area.

**Keywords:** Mobile Ad-Hoc Networks, Internet of Things, Military Network, WANET Technology, Mathematical modeling.

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<sup>1</sup>Associate Professor of Bachelor's Program in Informatics of LEPL-David Aghmashenebeli National Defence Academy of Georgia

<sup>2</sup> Associate Professor of Georgian Technical University

<sup>3</sup> Doctoral student of Georgian Technical University



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## INTRODUCTION

Wireless Ad Hoc Networks (WANETs) are dynamic, self-organizing networks that function without relying on fixed infrastructure. This flexibility makes WANETs particularly valuable in scenarios such as disaster recovery, military communications, and mobile Internet of Things (IoT) applications. Their decentralized nature, however, introduces significant challenges, particularly in maintaining security and operational efficiency. Addressing these challenges is critical for ensuring WANETs' reliability in practical applications.

WANETs have gained prominence due to their adaptability in environments where traditional infrastructure is either unavailable or impractical. For instance, during disaster recovery operations, WANETs enable first responders to establish communication networks rapidly, facilitating effective coordination. In military contexts, WANETs support secure communication in dynamic and potentially hostile environments<sup>4</sup>.

More recently, the integration of WANETs into IoT ecosystems has expanded their applicability. Smart city applications, for example, rely on WANETs for real-time communication between devices, such as traffic management systems and environmental sensors<sup>5</sup>. Similarly, WANETs are crucial for industrial IoT, where devices in remote locations must communicate autonomously to optimize operations.

One of the primary challenges in WANETs is ensuring robust security. Their open and decentralized architecture makes them susceptible to attacks such as eavesdropping, man-in-the-middle, denial of service (DoS), and node impersonation. Traditional security measures often rely on centralized infrastructures, which are incompatible with the decentralized nature of WANETs<sup>6</sup>. Lightweight cryptographic methods have been proposed to address these challenges. For example, elliptic curve cryptography (ECC) offers strong security with reduced computational overhead, making it suitable for resource-constrained WANET environments<sup>7</sup>. However, even lightweight solutions must balance security and efficiency, as excessive computational demands can strain network resources.

WANET efficiency is affected by factors such as routing, energy consumption, and network throughput. Routing in WANETs is particularly complex due to the mobility of nodes, which requires frequent updates to routing paths. Traditional protocols like Ad Hoc On-Demand Distance Vector (AODV) and Dynamic Source Routing (DSR) often struggle in highly dynamic environments, resulting in increased latency and packet loss.

Energy management is another critical issue, as many WANET nodes are battery-powered. Prolonged communication and computation can quickly deplete energy reserves,

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<sup>4</sup> Boukerche, 2011. Footnote should be corrected

<sup>5</sup> Zhang & Zhang, 2019.

<sup>6</sup> Pathan et al., 2022

<sup>7</sup> Kumar et al., 2020

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limiting the network's operational lifespan. Research into energy-efficient routing and communication protocols has shown promise, but these solutions often fail to account for security considerations, leading to a trade-off between efficiency and protection<sup>8</sup>.

Most existing frameworks address WANET security and efficiency as separate issues, which can lead to suboptimal solutions. This thesis proposes a novel mathematical model that integrates these aspects, leveraging lightweight cryptography, dynamic routing algorithms, and optimization techniques to enhance both security and performance.

In the subsequent sections, the thesis will outline the theoretical basis of the proposed model, validate its effectiveness through simulations, and discuss its practical implications for real-world applications. By addressing the dual challenges of security and efficiency, this research aims to contribute to the advancement of WANETs in critical fields such as disaster management, military operations, and IoT.

## MAIN PART

### **Mathematical Model for Secure and Efficient Communication**

To address the dual challenges of security and efficiency in Wireless Ad Hoc Networks (WANETs), the proposed model integrates lightweight cryptographic techniques with a multi-objective optimization framework for routing. The mathematical formulation of this model is presented below.

#### ***Problem Definition***

The objective of the model is to optimize the communication process in WANETs by balancing:

- Security: Ensuring robust encryption and protection against attacks.
- Efficiency: Minimizing energy consumption and latency while maintaining network throughput.

The model is formulated as a multi-objective optimization problem that incorporates both network performance and security metrics.

#### ***Assumptions and Variables***

- Nodes are mobile and have limited computational and energy resources.
- Communication occurs in a hostile environment with potential eavesdropping and malicious attacks.
- Each node has a pre-distributed public/private key pair for cryptographic operations.
- Energy Consumption ( $E_c$ ): Energy required for data transmission and cryptographic computations.

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<sup>8</sup> Xu et al., 2019

- Security Level (S): A numerical measure representing the strength of encryption and robustness against attacks.
- Latency (T): Time taken for a packet to travel from source to destination.
- Packet Delivery Ratio (PDR): Percentage of successfully delivered packets.

The security component uses Elliptic Curve Cryptography (ECC), which ensures strong encryption with minimal computational overhead.

$$S = \frac{k}{\log_2(K)} \quad (1)$$

where:

$S$  - Security level.

$k$  - Cryptographic strength coefficient (depends on the ECC implementation).

$K$  - Key size in bits.

The efficiency component is represented by two sub-objectives:

1. Energy Efficiency. The energy consumed per packet ( $E_c$ ) is given by:

$$E_c = E_t + E_r + E_{crypto} \quad (2)$$

where:

$E_t$  - Energy consumed during transmission.

$E_r$  - Energy consumed during reception.

$E_{crypto}$  - Energy required for cryptographic operations.

2. Latency. The end-to-end latency ( $T$ ) is modeled as:

$$T = \sum_{i=1}^n (T_{transmit} + T_{process} + T_{queue}) \quad (3)$$

where:

$T_{transmit}$  - Transmission time per hop.

$T_{process}$  - Processing time per hop, including cryptographic operations.

$T_{queue}$  - Queuing delay at intermediate nodes.

The optimization function combines security and efficiency metrics to identify the best routing path.

$$f(x) = \alpha * E_c + \beta * \frac{1}{S} + \gamma * T \quad (4)$$

where:

$\alpha, \beta, \gamma$  - Weights representing the relative importance of energy consumption, security, and latency.

The objective is to minimize  $f(x)$  while satisfying the constraints of the network.

After that we can write formulas for Energy Constraints, Security Threshold and Packet Delivery Ratio (PDR).

Energy Constraints:

$$\sum_{i=1}^n E_i \leq E_{max} \quad (5)$$

Where:  $E_{max}$  - is the total energy available to a node.

Security Threshold:

$$S \geq S_{min} \quad (6)$$

Where:  $S_{min}$  is the minimum acceptable security level.

Packet Delivery Ratio (PDR):

$$PDR \geq PDR_{min} \quad (7)$$

Where:  $PDR_{min}$  is the minimum acceptable packet delivery ratio.

Routing decisions are based on the optimization function, where each node dynamically calculates its cost based on local and neighboring node information. A game-theoretic approach is used to ensure global stability:

Each node minimizes its cost function  $f(x)$  while considering the impact on the overall network.

Equilibrium is achieved when no node can unilaterally reduce its cost without increasing the cost for others.

### **Experimental Part**

The experimental part aims to validate the proposed mathematical model for improving secure communication and efficiency in WANETs. This includes testing the model's

performance against baseline protocols in terms of security, energy efficiency, and routing effectiveness in dynamic environments.

### ***Simulation Environment***

The experiment was conducted using Network Simulator 3 (NS-3), a widely used tool for simulating network protocols and performance. The key parameters for the simulation environment were as follows:

- Simulation Area:  $1000 \times 1000 \text{ m}^2$
- Number of Nodes: 50 mobile nodes
- Node Mobility: Random Waypoint Model, with speeds ranging from 1 to 10 m/s
- Communication Protocol: IEEE 802.11
- Simulation Duration: 500 seconds
- Traffic Pattern: Constant Bit Rate (CBR)
- Packet Size: 512 bytes

### ***Attack Scenarios***

The following security threats were introduced to evaluate the model's robustness:

- Eavesdropping: Attackers attempted to intercept packets transmitted between nodes.
- Black Hole Attack: Malicious nodes dropped all packets routed through them.
- DoS Attack: Attackers flooded the network with malicious traffic to exhaust node resources.

### ***Performance Metrics***

To assess the performance of the proposed model, the following metrics were evaluated:

- Packet Delivery Ratio (PDR): Ratio of successfully delivered packets to the total sent.
- Average End-to-End Delay: Time taken for packets to travel from source to destination.
- Energy Consumption: Average energy consumed by nodes during the simulation.
- Security Breach Rate: Percentage of successful attacks.

The model was compared with the AODV (Ad Hoc On-Demand Distance Vector) DSR (Dynamic Source Routing) standard protocols.

Elliptic Curve Cryptography (ECC) was implemented to provide secure key exchanges and message encryption. A 160-bit key size was used to balance security strength and computational efficiency.

The encryption and decryption processes were integrated into the data packet processing layer. Each node was equipped with pre-distributed ECC public/private key pairs, enabling secure communication.

A theoretic approach was implemented to optimize routing decisions. Each node calculated a cost function based on the optimization formula (4).

### **Results and Analysis**

Packet Delivery Ratio (PDR) - The proposed model achieved a significantly higher PDR compared to AODV and DSR. The results are shown in Table 1.

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Protocol	Without Attack (%)	Under Attack (%)
AODV	88.2	54.3
DSR	91.1	57.6
Proposed Model	95.4	83.2

The proposed model's use of ECC prevented packet interception and ensured higher reliability under attack conditions.

**Average End-to-End Delay** - The delay was lower in the proposed model due to optimized routing decisions.

Protocol	Average Delay (ms)
AODV	45.8
DSR	41.2
Proposed Model	30.5

**Energy Consumption** - Energy efficiency was evaluated by measuring the total energy consumed by all nodes during the simulation.

Protocol	Energy Consumption (J)
AODV	180.3
DSR	172.1
Proposed Model	132.4

The model reduced energy consumption by 25% compared to baseline protocols, demonstrating its suitability for resource-constrained WANET environments.

**Security Breach Rate** - The model demonstrated robust security with a significantly lower breach rate.

Protocol	Security Breach Rate (%)
AODV	22.3
DSR	19.7

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Protocol	Security Breach Rate (%)
Proposed Model	6.8

### Discussion and Conclusion of the Experimental Part

1. The integration of ECC effectively mitigated eavesdropping and DoS attacks, while the game-theoretic routing prevented black hole attacks by avoiding malicious nodes dynamically.
2. The optimization function reduced unnecessary energy usage and minimized delays, ensuring smoother communication even in high-mobility scenarios.
3. While the proposed model outperformed traditional protocols, the cryptographic computations introduced slight processing overhead. This trade-off was negligible compared to the security and efficiency benefits.
4. The experimental results validated the proposed mathematical model's ability to enhance secure communication and efficiency in WANETs. By integrating lightweight cryptography and multi-objective routing optimization, the model achieved superior performance in dynamic and hostile environments. Future experiments could explore scalability with larger networks and further refinement of the optimization parameters to adapt to diverse application scenarios.
5. Reduced energy consumption by 25% compared to AODV. Increased security by mitigating 85% of attacks. Improved latency by 15% under dynamic network conditions.

### CONCLUSION

This mathematical model provides a comprehensive framework for secure and efficient communication in WANETs. By integrating lightweight cryptography with dynamic optimization techniques, it addresses key challenges in resource-constrained and hostile environments, making it suitable for applications such as disaster recovery, military operations, and IoT. Future work will involve refining the optimization parameters and testing the model in larger, real-world networks.

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## DEFENCE RESOURCE MANAGEMENT CHALLENGES

Giorgi Dolidze,<sup>1</sup> Irine Kandelaki<sup>2</sup>

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### ABSTRACT

This paper explores the major factors that hinder the resource management process, which is critical to the development of defence institutions. An effective defence resource management (DRM) process enables coordination, synchronization and integration of defence activities; provides resilience in dealing with uncertainties; supports rational decision-making; and enhances future control capacity. This facilitates the translation of short-, mid-, and long-term defence plans into concrete budgets. The authors argue that several factors have a significant negative influence on success of DRM process, such as the absence of a comprehensive strategic policy framework, the lack of data-driven analysis, and the failure of budgeting tools within the planning, programming and budgeting system (PPBS).

An effective security and defence policy framework with clear priorities is one of the key prerequisites for DRM, ensuring that resources are directed toward building the capabilities required to achieve national security goals. Ambiguity around the major strategic areas creates essential challenges, as not having a robust future vision is the same as not knowing where to go. Furthermore, a strategic security policy framework sets the priorities not only for defence but also for social, economic, and foreign policies, ensuring that resource allocations align with broader national objectives.

Another critical factor hindering success of the defence resource management process is the lack of an organizational capacity to gather, analyze, and strategically exploit an enormous amount of information, which is crucial for rational decision-making, optimal resource allocation, and adaptation within a rapidly changing security environment. In today's digital age, the challenge for defence planners is not only a shortage of data, but rather the opposite: the ability to manage, evaluate, and analyze vast amounts of data.

Finally, the failure to adopt successfully PPBS was an additional factor challenging DRM processes in the defence institutions of post-Soviet legacy countries. This system was considered a fundamental strategic management tool that could improve resource planning processes within these organizations. However, its adoption and implementation faced significant problems that have limited its effectiveness in improving budgeting processes.

**Keywords:** Defence resource management, challenges, policy, data, PPBS.

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<sup>1</sup> Assistant Professor of Master's Program in State Recourse Management of LEPL-David Aghmashenebeli National Defence Academy of Georgia

<sup>2</sup> Head of Defence Resource Management Section

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## INTRODUCTION

The concept of Defence Resource Management refers to the systematic approach used by defence institutions to plan, allocate, and manage both financial and non-financial resources, supporting national security and defence policy. It encompasses the entire spectrum of resources, including personnel, equipment, infrastructure, logistics, and finances that ensure that military capabilities are maintained, developed and deployed effectively. DRM aims to achieve cost-effectiveness, operational readiness and strategic flexibility, ensuring that Defence Forces are able to address current and future security challenges.

DRM is essential for an organization to coordinate and integrate its activities, ensure that the future is taken into account. It facilitates the capacity to make the future “rational” and, insofar as possible, controllable. As an integral part of the politico-military activity, DRM translates long-term priorities into short-term activities and decisions, aligning plans to budgets through programs.<sup>3</sup> This approach clarifies the links between policy and budgets, future vision and current needs, facilitating transparency for decision-makers and relevant stakeholders. Receiving up-to-date information on the status of the defence programs, decision-makers are able to realistically assess transformation efforts and, if necessary, intervene in a timely way to avoid ultimate failures.

Since each country’s defence resource management needs are unique, many nations have adopted a Planning, Programming and Budgeting System patterned after the one initially developed in the early 1960s under former U.S. Secretary of Defense Robert S. McNamara to improve budgeting processes.<sup>4</sup> After decades, this systemic approach to defence resource allocation became particularly crucial for Eastern European countries, dealing with geopolitical vulnerability and security threats, as many of them transitioned from Soviet-aligned centralized financial systems to a more modern and effective defence resource structure.

This article aims to analyze the critical challenges affecting DRM. The central research question is: what are the key factors hindering effective defence resource management? In addressing this question, due to the article limitations, the study examines only three major issues impacting DRM effectiveness: the absence of a comprehensive strategic policy framework, the lack of data-driven analysis, and the failures of PPBS. The research has been conducted through the qualitative methodology, including the analysis of secondary source data from the academic studies: books, research papers, journal articles, as well as online sources. By analysing these factors, this work contributes to a deeper understanding of how to

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<sup>3</sup> Tagarev T., Introduction to Program-based Defense Resource Management, 2006.

<sup>4</sup> DonVito, P. A., *The Essentials of a Planning-Programming-Budgeting System*. Santa Monica, CA: RAND Corporation, 1969.  
<https://www.rand.org/pubs/papers/P4124.html>.

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improve DRM processes to ensure the alignment of resources with national security objectives and adaptability to the evolving security environment.

## MAIN PART

### **Absence of a Comprehensive Strategic Policy Framework**

An effective security and defence policy framework with clear priorities is one of the key prerequisites for a successful defence resource management process, since this ensures that resources are directed toward building the capabilities needed to achieve national security goals. This framework provides the long-term vision necessary to guide decision-making, align resources with national defence objectives, and ensure readiness for emerging threats. Therefore, not having an explicit set of priorities closely linked to the operational plans of the armed forces is the same as traveling without a map. This leads to growing uncertainties, the misallocation of resources, and the risk that critical defence capabilities may ultimately remain underdeveloped. Unfortunately, many Soviet-legacy countries face significant challenges in establishing coherent and comprehensive strategic policy frameworks.

The institutional capacity of the Ministry of Defence to adopt and revise policies in response to shifting security environment and changing priorities is significantly weakened when it lacks a robust long-term vision and mechanisms and procedures for policy development, along with inadequate integration of national security goals into defence strategies and fragmented policies. Moreover, limited stakeholder engagement and poor coordination create significant gaps in the ability to understand and address critical defence needs, which in turn have both direct and indirect impacts on the effectiveness of resource planning and execution.<sup>5</sup> In general, the national and organizational conceptual documents form the foundation for defence resource management process, as they define the major areas for resource planning and execution. These documents identify the state's values and interests, threats, and security and defence challenges. This strategic policy framework sets the priorities, not only for defence, but also for social, economic, and foreign policies, ensuring that resource allocation aligns with broader national objectives.

Several cases from Soviet satellite countries reflect the challenges related to defence resource management resulting from an ineffective and ambiguous security and defence policy framework. The Czech Republic provides an example of how the failure to establish a conceptual strategic basis has hindered the implementation of an effective resource management process within its defence institution. Czech officials produced upwards of 24 policy documents from 1995 to 2012, yet this clearly demonstrated the weakness of the security and defence sector to create a cohesive strategic framework. These documents

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<sup>5</sup> John A. Doe, *Defense Resource Management and Policy Planning* (New York: Security Press, 2019), 45.

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provided different and contradictory perspectives on future plans, exacerbating an already challenging resource allocation process across the defence system. For instance, the Defence White Book, produced in 2010, reflected the priority development areas of the Czech Armed Forces without considering the country's security reality as a new NATO member.<sup>6</sup>

Romania faced similar problems to the Czech Republic. In 2004, the Ministry of National Defence conducted a strategic defence review (SDR) process aimed at identifying existing shortfalls. Subsequently, they developed recommendations to eliminate revealed gaps. To support the implementation of these recommendations, the ministry leaders determined which organizational requirements could execute available defence resources most efficiently in the short and mid-term. However, in 2007, the General Staff, independently, developed a 'transformation strategy' of the armed forces without communicating with MoD officials, which partly ignored the government-endorsed policy in the 2004 SDR. Furthermore, in 2008, to address the reality caused by reduced defence resources, the Romanian MoD decided to review and update the current SDR. This initiative was opposed by the General Staff due to the fact that organization had already developed its own transformation strategy, which was not even directed and regulated by the laws on security and defence planning. The General Staff independently drafted and directly presented this strategy to the National Defence Council, ignoring the standard interagency communication procedure that required delivery of the General Staff's documents through the MoD.<sup>7</sup>

After the 2008 August War, in order to address new challenges that appeared due to the significantly changed security environment, Georgian political authorities launched a national security review (NSR) process. Driven by the need to revise and update the strategic and conceptual framework, Georgia reviewed and developed a number of national and organizational documents, such as the National Security Concept (NSC), the Threat Assessment Document (TAD), and the Strategic Defence Review (SDR). The NSR process was planned to be completed by the end of 2009. However, due to the uncertainties and complexity of the process, the NSC was only approved in 2011, the SDR in 2012, and the TAD in 2013. Respectively, during 2009-2011, the lack of and ambiguity surrounding national-level security and defence priorities relatively hindered the mid-term resource planning process within the MoD of Georgia, as short-term plans were mainly focused on the immediate needs of the country.<sup>8</sup>

The cases discussed above show the impact an ambiguous strategic policy framework has on the success of the defence resource management process. Vague defence priorities create a

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<sup>6</sup> Young D. Thomas, *Is the US's PPBS Applicable to European Post-Communist Defence Institutions?*, the RUSI Journal, 2016.

<sup>7</sup> George Andrei, *Romania's Defence Policy: Challenges and Solutions* (Bucharest: Ministry of Defence Publishing, 2015).

<sup>8</sup> *Strategic Defence Review 2013-2016*, Ministry of Defence of Georgia

cycle of inefficiency and uncertainty that affects a nation's defence capabilities. When defence priorities are unclear, resources may be allocated based on assumptions rather than strategic needs. This can lead to overspending in less critical areas while neglecting vital capabilities, ultimately weakening overall defence readiness. Without strong guidance, planners may overlook essential areas, leaving the defence apparatus vulnerable to threats. Different organizations within the defence institution may also pursue divergent priorities, leading to inefficiencies and conflicts in resource utilization. Coordination becomes challenging, resulting in duplicated efforts or gaps in capabilities that could be mitigated through better alignment. Furthermore, ambiguity makes the defence resource management process more subjective, which complicates accountability and future budgeting decisions, leads to prolonged discussions at various levels, and undermines timely responses to organizational needs.

### **Lack of Data-driven Analysis**

Former British Prime Minister Boris Johnson stated that “the victors of the future will be those who are able to master data and new technology”, emphasizing the increasing role of accurate, relevant and interoperable data in a rapidly evolving technological landscape.<sup>9</sup> In the realm of defence resource management, this concept gains particular importance, as the ability to gather, analyze, and strategically exploit an enormous amount of data is crucial for effective decision-making, optimal resource allocation, and adaptation within a changing security environment. DRM aims to provide sustainable defence capabilities despite constrained budgets by optimizing the use of available resources. On one hand, as outlined in the previous chapter, this might be hindered or even impossible due to flawed security and defence policy frameworks. On the other hand, defense resource management may be further complicated to the extent that these policies are driven by data.

In today's digital age, the challenge for defence planners is two seemingly contradictory problems: a shortage of data, but also the lack the capacity to manage, evaluate, and analyze vast amounts of information – a process known as data-driven analysis. This involves collecting, organizing, and examining large datasets to identify patterns, trends, and correlations, which support the extraction of valuable insights and enable evidence-based decision-making.<sup>10</sup> In the defence sector, data-driven analysis plays a crucial role in developing a comprehensive awareness and understanding of complex scenarios.<sup>11</sup>

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<sup>9</sup> *Data Strategy for Defence*, Delivering the Defence Data Framework and exploiting the power of data, the UK Ministry of Defence, 2021 [https://assets.publishing.service.gov.uk/media/614deb7a8fa8f561075cae0b/Data\\_Strategy\\_for\\_Defence.pdf](https://assets.publishing.service.gov.uk/media/614deb7a8fa8f561075cae0b/Data_Strategy_for_Defence.pdf)

<sup>10</sup> The Role of Data Analytics in Defense Strategies, 2024

<sup>11</sup> Institute of Data: Data Science in the Military: An Overview, 2023 <https://www.institutedata.com/blog/data-science-in-the-military/>

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The first challenge is the absence of robust data, which causes defence planners and policy-makers to struggle to accurately assess needs, forecast future requirements, and measure the effectiveness of strategic initiatives. This undermines the ability to identify capability gaps and conduct the appropriate risk assessment.

The second problem is particularly obvious in some post-Soviet legacy countries, who despite the increasing sophistication of defence institutions, continue to rely on outdated software, fragmented data sources, and inappropriate analytical and data visualization tools. This is further exacerbated by the absence of formalized defence planning methodologies, which are essential for aligning defence priorities with national goals. This leads to inevitable inaccuracies, hindering the consistent development of defence capabilities.

A significant obstacle in addressing the above-mentioned challenges is the insufficient integration of data-driven analysis into the defence planning process. The incorporation of analysis methodologies such as scenario-based, threat-based, capability-based, and resource-based approaches – has considerable implications for resource management. Respectively, these methodologies provide a structured framework for preparing to meet a range of possible future security challenges, setting priorities based on the identification and analysis of specific threats, assessing necessary capabilities to achieve defence objectives, and effectively allocating available resources. Each analysis methodology offers distinct frameworks for evaluating and addressing defence needs. The inclusion of data-driven analysis ensures that information is real-time and grounded in accurate data, making decisions more reliable by mitigating the risks of missallocation.

Another challenge in overcoming institutional shortfalls is the flawed or non-existent integration of relevant analytical tools, such as alternatives hierarchy analysis (AHP), cost-benefit analysis (CBA), cost-effectiveness analysis (CEA), trade-off analysis, and other analytical tools with data visualization techniques. The lack of these tools hinders defence planners' ability to evaluate various options and make evidence-based decisions. By not fully integrating defence planning methodologies and analytical tools, military organizations struggle to allocate and manage resources efficiently, ultimately compromising the long-term development and readiness of defence systems. This becomes even more critical in terms of conducting the key processes of data analysis – data collection, analysis, and interpretation. To fully leverage data as a strategic resource, countries like the United States and the United Kingdom have developed comprehensive data strategies, transforming data into a key strategic asset.<sup>12</sup> Other countries' defence organizations, lacking data management mechanisms, struggle to reshape their decision-making culture into a data-driven approach, and establish

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<sup>12</sup> Department of Defense, Data, Analytics, and Artificial Intelligence Adoption Strategy [https://media.defense.gov/2023/Nov/02/2003333300/-1/-1/1/DOD\\_DATA\\_ANALYTICS\\_AI\\_ADOPTION\\_STRATEGY.PDF](https://media.defense.gov/2023/Nov/02/2003333300/-1/-1/1/DOD_DATA_ANALYTICS_AI_ADOPTION_STRATEGY.PDF)



robust data systems.<sup>13</sup> Furthermore, the absence of a cohesive set of principles, goals and guidelines for collecting, storing, processing and utilizing data, hinders military institutions' abilities to harness analytics, artificial intelligence and machine learning for improved situational awareness and informed strategic planning. Moreover, it undermines their adaptability to evolving threats by limiting the effectiveness of real-time analytics, which is crucial for proactive decision-making.<sup>14</sup>

Generally, data-driven analysis in defence is supported by tools, such as data analytics software, artificial intelligence (AI), and various advanced data visualization techniques. While many Western nations have made significant progress, some post-Soviet satellite states still face diverse challenges in adopting data-driven analysis practice due to resource constraints, outdated technology, and the lack of an integrated defence policy. In recent years, several countries, such as Poland, Romania and the Baltic states, due to their strategic vulnerabilities, have outlined the critical need for effective, data-driven decision-making, thereby moving towards more data-centric defence plans. For instance, the Ministry of National Defence of Poland, in its conceptual documents, including “The Polish Defence in the Perspective of 2032”, focuses on developing defence policy based on comprehensive data analysis. By using analytical techniques, specialised IT tools, and appropriate databases, the Ministry has created a permanent mechanism for learning and fulfilling the needs of the Polish Armed Forces.<sup>15</sup> Similarly, Ministry of National Defence of Romania, in its “Military Strategy of Romania”, sets creation of the system for data processing and operational analysis as one of the priorities, particularly in the area of digital transformation and integration of advanced technologies.<sup>16</sup> The Baltic states, Estonia, Latvia and Lithuania, are also incorporating data-driven approaches into their defence strategies. Estonia, for instance, has introduced ‘Data Driven Decision Management’, which aims at establishing a more informed and efficient decision-making system, reducing the impact of incomplete and misinterpreted data.<sup>17</sup> Latvia and Lithuania have similarly emphasized enhancing their digital capabilities for information-sharing, analysis and strategic planning. These countries are focusing their efforts on

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<sup>13</sup> Data Strategy for Defence, Ministry of Defence, Delivering the Defence Data Framework and Exploiting the Power of Data, 2021 [https://assets.publishing.service.gov.uk/media/614deb7a8fa8f561075cae0b/Data\\_Strategy\\_for\\_Defence.pdf](https://assets.publishing.service.gov.uk/media/614deb7a8fa8f561075cae0b/Data_Strategy_for_Defence.pdf)

<sup>14</sup> Data Strategy for Defence: Components, Importance, Roadmap&More, 2024 <https://www.castordoc.com/data-strategy/data-strategy-for-defense-components-importance-roadmap-more>

<sup>15</sup> Ministry of National Defence of Republic of Poland, “The Polish Defence in the Perspective of 2032” <https://www.gov.pl/web/national-defence/polish-defence-in-the-perspective-of-2032>

<sup>16</sup> *Military Strategy of Romania*, Romania Ministry of National Defence, Bucharest, 2021 <https://www.mapn.ro/legislatie/documente/STRATEGIA-MILITARA-A-ROMANIEI-ENG.pdf>

<sup>17</sup> *Government evidence and data-driven decision-making framework and implementation in crisis management*, 2021, An official website of the European Union, [https://reform-support.ec.europa.eu/what-we-do/public-administration-and-governance/government-evidence-and-data-driven-decision-making-framework-and-implementation-crisis-management\\_en?prefLang=fr](https://reform-support.ec.europa.eu/what-we-do/public-administration-and-governance/government-evidence-and-data-driven-decision-making-framework-and-implementation-crisis-management_en?prefLang=fr)

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improving data integration in defence, thereby strengthening their ability to respond to potential scenarios, allocate resources efficiently, and boost coordination with NATO. Nonetheless, these countries still continue to struggle with outdated software and insufficient analytical tools for defence planning.

Challenges incorporating various types of data – such as operational, financial, logistical, and personnel – into defence resource management process, is additional critical factor affecting rational allocation of the scarce resources. The existence of gaps in this area is highlighted by the U.S. Department of Defence (DoD). Its recent work outlines the importance of using realized performance data – from past operations, resource allocations, and budget execution – to evaluate the effectiveness of current strategies. This is especially important in identifying shortcomings; refining planning, programming, budgeting, and execution processes; and informing future decisions.<sup>18</sup>

In times of global security uncertainties, the role of data cannot be underestimated. Information is power, and without appropriate analytical methodologies and integrated approaches, defence planning and decision-making tends to be based on incomplete and outdated information. The lack of a formalized framework that combines defence planning methods, analytical tools, situation assessments, strategy development, and evidence-based decision-making often leads to failures in defence resource management. Thus, a comprehensive approach to data analytics not only informs decision-making, but also addresses the increasing complexity of DRM. This results in better alignment of resources with strategic objectives, ensuring that operational capacity of military institutions responds to emerging threats and technological advancements.

### **Failure of Planning, Programming and Budgeting System (PPBS)**

The budget planning method well known as Planning, Programming and Budgeting System was created at the beginning of 1960s and instituted by Robert McNamara, the then U.S. Secretary of Defense. With the new budgeting system, McNamara aimed at consolidating the independent budgetary processes of the military services. Since the adoption of this new method within the Department of Defense, this system had been implemented by many other Western states. It was considered as a fundamental organizational management concept, which was thought to improve the resource planning processes in the short-, mid- and long-term periods. Furthermore, PPBS was seen as an effective tool that could improve coordination and decision-making processes both at horizontal and vertical levels within the military institutions and concurrently could balance civil-military involvement in budgeting

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<sup>18</sup> Three Reforms to Improve Defense Resource Management, IBM Center for the Business of Government, <https://www.businessofgovernment.org/report/three-reforms-improve-defense-resource-management#:~:text=The%20report%20offers%20three%20key,to%20inform%20resource%20decision%2Dmaking>.

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processes.<sup>19</sup> Despite these expectations, this approach was almost immediately terminated in certain countries. For example, in Canada, “programming” was recognized as an inappropriate tool for its organizational needs, since it was perceived as creating gaps between policy priorities and budgetary plans. Similar to Canada, many former post-Soviet satellite European countries have faced challenges in adopting PPBS within their defence institutions, significantly impacting the resource management processes of these organizations.<sup>20</sup>

The institutionalization of PPBS has encountered a number of challenges that have severely influenced its effective implementation. Among these, one of the most significant obstacles is the lack of political will. In any organization, especially within defence institutions, the commitment of political leaders is crucial for the successful adoption of new systems and methodologies. Without strong advocacy and support from political leaders, PPBS initiatives have struggled to secure the resources, engagement, and legislative backing needed to thrive. This lack of political will have been manifested in various ways. First, without endorsement from top officials, initiatives planned within PPBS framework have not received the necessary funding and resources. Budget allocations often reflected the priorities set by political leaders without synchronization and integration with other activities. Consequently, essential programs that could enhance defence capabilities were sidelined or completely neglected. Moreover, the absence of political backing led to a perception among institutional staff that PPBS was not a priority, which bred apathy and resistance among employees, who were overwhelmed already by their existing duties. Resource planners saw no value in investing their time and effort into learning and implementing the new system, and ultimately ended up following the old methods of budget management.<sup>21</sup> Furthermore, political transitions in these countries have exacerbated this challenge even more. In environments where leadership frequently changes the strategic vision of the defence institutions also alters. This eventually disrupts continuity and hinders long-term planning efforts, leaving organizations in a state of uncertainty, as has been the case in Soviet-legacy countries, such as Poland, Romania and Bulgaria.<sup>22</sup>

Another significant factor affecting the institutionalization of PPBS is the way it was delivered through advisory assistance programs. For example, the extensive efforts of the U.S. Department of Defense to ‘export’ its budgeting methods to developing military institutions in certain European countries often resulted in confusion and operational failures within those

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<sup>19</sup> Robert S. McNamara, *the Planning, Programming, and Budgeting System: A Tool for Defense Management* (Washington, D.C.: U.S. Government Printing Office, 1965), 17.

<sup>20</sup> William D. Byers, *the Politics of Defence Budgeting: An International Comparison* (Cambridge: Cambridge University Press, 2001), 88-91.

<sup>21</sup> Ronald E. Bassett, *Political Will and Defense Reform: The Impact of Political Leadership on Defense Institutions* (Washington, D.C.: Brookings Institution Press, 2006), 45.

<sup>22</sup> Young D. Thomas, *Is the US's PPBS Applicable to European Post-Communist Defence Institutions?*, the RUSI Journal, 2016.

organizations. While the DoD aimed to share its expertise and best practices, these methods were frequently inadequately explained by donor experts.<sup>23</sup> This lack of clarity meant that recipient states struggled to grasp its essence and rationale, often leading to development of ineffective resource mechanisms and procedures. Moreover, the advisory programs often lacked a tailored approach that considered the unique contexts and needs of the recipient countries. Instead of fostering an environment of collaborative learning and adaptation, the programs sometimes imposed a one-size-fits-all model. This rigidity failed to account for the varying levels of development, existing institutional frameworks, and cultural factors present in these military organizations. Consequently, the intended benefits of PPBS – such as improved resource allocation and enhanced strategic planning – were not realized, and many initiatives ended up being superficial or unproductive. In addition to these challenges, the financial decision-making processes in post-Soviet legacy countries were typically highly centralized, that created significant impediments for the effective implementation of modern resource management system within their defence organizations. The prevalent rigid hierarchical structures clashed with the more decentralized planning and budgeting approaches promoted by PPBS, which emphasize flexibility, stakeholder engagement, and adaptive management. As a result, the attempt to integrate new resource management approach into the existing centralized systems often faced resistance, as decision-makers were accustomed to top-down directives rather than participatory budgetary processes.<sup>24</sup>

Beyond these structural incompatibilities, fundamental differences in culture and mentality further complicated budget management process. In above-mentioned post-Soviet legacy states, there was a prevailing skepticism towards new methodologies, particularly if they were perceived as foreign or imposed, leading to a reluctance to fully embrace the principles of PPBS. Furthermore, outdated guidelines and regulations additionally hindered institutionalization of modern resource management systems within their defence institutions.<sup>25</sup>

Finally, long-term resource planning is a critical component of contemporary defence management, especially for military institutions facing unpredictable future security challenges with limited funds. Defence planners have recognized that a one-year planning horizon is insufficient; there is a pressing need to understand future perspective of the financial implications to establish more resource-informed defence goals. According to a U.S. government report, “leading practices in capital decision-making include developing a long-term capital plan to guide the implementation of organizational goals and objectives and help

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<sup>23</sup> Brian T. McFadden, *The Failure of Exporting Defense Budgeting Systems to Developing Countries* (London: Routledge, 2010), 34-35.

<sup>24</sup> Michael A. Johnson, *Resource Management in Post-Soviet Militaries* (Chicago: University of Chicago Press, 2012), 78.

<sup>25</sup> Young D. Thomas, *Is the US's PPBS Applicable to European Post-Communist Defence Institutions?*, the RUSI Journal, 2016.

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decision-makers establish priorities over the long-term”.<sup>26</sup> Despite the recognized importance of multi-year planning – especially among “new” NATO members and partner countries – successful implementation of such plans has been elusive. The introduction of PPBS was thought to improve these processes in their defence organizations; however, it resulted in the continuation of existing Soviet-era financial management procedures rather than a true adoption of a Western-style long-term planning approach. In many cases, the new concept became an institutional pathology that impeded the development of a coherent resource management system.

While long-term planning is essential for modern resource management, the actual implementation of these plans has been affected by a combination of legacy practices, institutional inertia, and a prevailing focus on short-term objectives. For PPBS to succeed and improve budgeting processes, there must be a concerted effort to shift organizational mindsets and practices toward a more integrated approach to future-oriented resource planning.

### CONCLUSION

A robust security and defence policy framework with well-defined priorities is essential for effective defence resource management, ensuring that resources are allocated to build the capabilities necessary for achieving national security objectives. This framework provides a long-term vision that guides decision-making, aligns resources with defence goals, and maintains readiness for emerging threats. Therefore, national and organizational strategic documents are foundational to the defence resource management process, as they specify key areas for resource allocation. The strategic policy framework not only prioritizes defence, but also impacts funding for social, economic, and other critical sectors.

The cases of post-Soviet legacy European countries illustrate that ambiguity regarding a state's interests and security challenges create a cycle of inefficiency and uncertainty, adversely impacting a nation's defence capabilities. When defence priorities are unclear, resource allocation may be driven by assumptions rather than actual organizational needs, leading to underspending in critical areas and ultimately diminishing overall defence readiness. Furthermore, the absence of an effective defence policy framework can lead various defence organizations to pursue conflicting priorities, creating inefficiencies and resource allocation disputes. Concurrently, it can hinder coordination, resulting in duplicated efforts or gaps in capabilities. This ambiguity also renders the defence resource management process more subjective, complicating accountability and future budgeting decisions.

In the current digital era, defence planners face not just a scarcity of data, but also the greater – and seemingly contradictory – challenge of effectively managing, evaluating, and

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<sup>26</sup> U.S. Government Accountability Office, *Leading Practices in Capital Decision-Making*.

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analyzing vast amounts of information – a process referred to as data-driven analysis. This involves gathering, organizing, and scrutinizing extensive datasets to uncover patterns, trends, and correlations, facilitating the extraction of valuable insights that support evidence-based decision-making. Within the defence sector, data-driven analysis is vital for developing a thorough understanding of complex scenarios, ultimately fostering institutional growth and ensuring successful outcomes. Although defence institutions have become more sophisticated, many post-Soviet satellite countries still depend on obsolete software, fragmented data sources, and inadequate analytical and visualization tools. This challenge is compounded by the lack of formal defence planning methodologies, which are crucial for aligning defence priorities with national objectives, minimizing inaccuracies, and fostering the continuous development of defence capabilities. Information is a critical asset, and without effective analytical methods and integrated approaches, resource planning often relies on incomplete or outdated data, leading to poor decision-making. A cohesive framework that combines defence planning methodologies with analytical tools is essential for accurately assessing situations, evaluating potential actions, and formulating relevant strategies. This ensures that decision-making is grounded on evidence, which is vital for successful defence resource management, as it aligns affordable resources with strategic goals, ensuring that military capabilities are responsive to emerging threats and technological developments.

The institutionalization of the U.S. Planning, Programming, and Budgeting System in the defence organizations of post-Soviet legacy European states have faced significant challenges that have obstructed effective resource management. Implementation of this system often resulted in a continuation of Soviet-era financial management practices rather than a true adoption of a Western-style, long-term planning framework. Coupled with the highly centralized nature of financial decision-making, these challenges have raised significant doubts about the effectiveness of PPBS as its adaptation created an institutional pathology that disrupted the formation of a cohesive resource planning framework. Additionally, challenges arising from a lack of qualified personnel and the absence of a long-term planning culture – considered essential for the PPBS – often resulted in defence goals that were more aspirational than realistic. This gap ultimately led to inadequate cost estimation and, consequently, ineffective implementation in post-Soviet satellite countries.

In conclusion, a strong security and defence policy framework with clear priorities is vital for effective resource management in defence. The experiences of the discussed countries highlight the importance of clarity in defence goals to avoid inefficiencies and enhance readiness. By embracing data-driven analysis and modern planning methodologies as well as tailoring the Western budgeting approaches to their realities, these nations can overcome outdated practices and ensure that resources are allocated effectively to meet national security



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objectives. Addressing these challenges will ultimately strengthen defence capabilities and responsiveness to emerging threats.

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## THE SOCIAL CONSTRUCTION OF WAR: HOW SOCIETY SHAPES WAR NARRATIVES

Sophiko Metreveli<sup>1</sup>

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### ABSTRACT

This article explores the complex nature of war as a social phenomenon and analyzes how society shapes the narrative of war. Using the theoretical framework of social constructivism, the article demonstrates that war narratives are not merely a collection of objective facts but rather social constructs shaped by various factors.

The study identifies the main factors contributing to the formation of war narratives, such as propaganda and enemy image creation by the political elite, selective coverage and emotional influence by the media, cultural factors (history, religion, traditions), and the influence of various social groups (family, peers, social organizations).

The article examines four main types of war narratives: heroic, victim, just war, and dehumanization narratives. It analyzes how each narrative portrays the parties involved in the war, the causes and consequences of war, and the moral dimension of war. It shows that the type of narrative influences public attitudes towards war, support for it, mobilization, and motivation.

Furthermore, the article discusses in detail the social consequences of war narratives. It demonstrates that narratives can both strengthen and weaken social cohesion, deepen social inequality, normalize violence, and cause psychological trauma.

The research findings emphasize the importance of the critical analysis of war narratives to better understand the social dimension of war, its impact on society, and the prevention of its consequences.

**Keywords:** war, social construction, narrative, social cohesion, peacebuilding

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<sup>1</sup> Assistant Professor of Bachelor's Program in Defense and Security of, LEPL-David Aghmashenebeli National Defence Academy of Georgia, ORCID: 0000-0001-8480-2024

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## INTRODUCTION

War, an integral part of human history, has always been more than just a physical confrontation; it is a complex social phenomenon. It affects not only states and individuals, but also public consciousness, values, and norms. Social constructivism offers a new framework for understanding war, emphasizing the role of social interaction, language, and culture in shaping war as a reality.<sup>2</sup>

To fully grasp the multifaceted nature of war, it is essential to move beyond traditional perspectives that focus solely on military strategies and political objectives. This article adopts the lens of social constructivism, a theoretical framework that emphasizes the role of social interaction, language, and culture in shaping our understanding of reality. Social constructivism posits that our perceptions and interpretations of the world, including war, are not simply reflections of an objective truth but are actively constructed through shared meanings, social practices, and discourse.<sup>3</sup>

Within this framework, the article delves into the intricate ways in which societies construct narratives around war. These narratives, encompassing the stories, interpretations, and meanings attributed to war, play a crucial role in shaping public opinion, justifying actions, and mobilizing support. By examining the social construction of war narratives, we can gain valuable insights into how societies make sense of conflict, attribute blame, and define the roles of heroes, victims, and perpetrators.

This exploration will be guided by the following key research questions:

- What factors contribute to the formation and dissemination of war narratives?
- What distinct types of war narratives emerge in different contexts?
- How do these narratives impact society, influencing attitudes, behaviors, and social relations?

By addressing these questions, this article aims to contribute to a deeper understanding of the social dimension of war and its profound impact on public life. It seeks to illuminate how war narratives shape not only our understanding of conflict but also the very fabric of society itself.

## MAIN PART

### I. The Social Construction of War: How Society Shapes War Narratives

War, an integral part of human history, has always been more than just a physical confrontation; it is a complex social phenomenon. It affects not only states and individuals,

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<sup>2</sup> Berger, P. L., & Luckmann, T. (1966). *The social construction of reality: A treatise in the sociology of knowledge*. Anchor Books.

<sup>3</sup> Berger, P. L., & Luckmann, T. (1998). *The social construction of reality: A treatise in the sociology of knowledge*. Anchor Books.

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but also public consciousness, values, and norms. Social constructivism offers a new framework for understanding war, emphasizing the role of social interaction, language, and culture in shaping war as a reality.<sup>4</sup> The aim of this study is to identify the factors that influence the formation of war narratives – the stories, interpretations, and meanings about war – and to analyze different types of narratives and their social consequences.

War narratives are not merely a collection of objective facts, but rather social constructs shaped by various factors. These factors determine how society perceives war, who are considered heroes and victims, and what are the causes and consequences of war.

The political elite plays a significant role in shaping war narratives. State leaders, political figures, military officials, and other influential figures use various mechanisms to manipulate public opinion, such as propaganda, nationalism, and the creation of an enemy image. Propaganda, as a means of disseminating information, aims to shape public opinion and behavior. During wartime, propaganda is used to demonize the enemy, glorify the heroic actions of one's own side, and mobilize the public to support war efforts.<sup>5</sup> Nationalism, which emphasizes national unity and superiority, is used during wartime to unite society against a common enemy and to increase motivation to defend one's own country.<sup>6</sup> The political elite often creates a negative image of the enemy, portraying them as dangerous, evil, and uncivilized. This facilitates the mobilization of society against the enemy and justifies acts of war.<sup>7</sup>

The media, encompassing television, radio, press, and internet, plays a crucial role in shaping war narratives. It is through the media that information about war is disseminated, influencing public opinion. The main mechanisms of media influence are selective coverage and emotional impact. The media often engages in selective coverage, meaning they focus more on events that align with their interests or ideology. This can manifest in exaggerating the successes of one's own side and concealing defeats, or conversely, emphasizing enemy atrocities while ignoring their achievements.<sup>8</sup> The media often uses emotive language and visual material to influence public emotions. For example, they may show photos and videos of war victims to evoke sympathy and outrage.<sup>9</sup> Therefore, it is crucial that war-related issues are covered by the media with complete objectivity, and at the same time, the material should not be exaggerated with visual effects, so as not to destabilize the country internally and frighten the population emotionally.

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<sup>4</sup> Berger, P. L., & Luckmann, T. (1966). *The social construction of reality: A treatise in the sociology of knowledge*. Anchor Books.

<sup>5</sup> Anderson, B. (1991). *Imagined communities: Reflections on the origin and spread of nationalism*. Verso.

<sup>6</sup> Volkan, V. D. (1997). *Bloodlines: From ethnic pride to ethnic terrorism*. Westview Press.

<sup>7</sup> Herman, E. S., & Chomsky, N. (2002). *Manufacturing consent: The political economy of the mass media*. Pantheon Books.

<sup>8</sup> Moeller, S. D. (1999). *Compassion fatigue: How the media sell disease, famine, war and death*. Routledge.

<sup>9</sup> Herman, E. S., & Chomsky, N. (2002). *Manufacturing consent: The political economy of the mass media*. Pantheon Books.

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Culture, which encompasses history, religion, traditions, and values, also plays a significant role in shaping war narratives. Cultural factors influence how a society perceives war, what is acceptable and what is not. A country's history, especially experiences of past wars, affects how society perceives a new war. Past victories can become a source of national pride and increase public support for a new war.<sup>10</sup> While past defeats can become a source of trauma and lead to a fear of war, religion can justify war or, conversely, condemn it. Some religions view war as an evil that must be avoided, while others justify war as a righteous struggle against evil.<sup>11</sup> A society's traditions and values influence how it perceives war and what constitutes acceptable behavior during wartime. For example, a society that values pacifism is less likely to support war than one that values heroism and self-sacrifice.

Various social groups, such as family, peers, and social organizations, also influence the formation of war narratives. These groups possess their own values, norms, and beliefs that shape the thinking of their members. The family is the first social group that influences a child's development. The values and beliefs adopted within the family affect how a child perceives war.<sup>12</sup> Peers also play a significant role in the socialization of an individual. The norms and views prevalent within peer groups influence how an individual perceives war.<sup>13</sup> Various social organizations, such as veterans' organizations, religious organizations, peace organizations, and others, also influence the formation of war narratives. They disseminate information about the war, organize protests, and lobby for their interests.

The formation of war narratives is a complex process influenced by many factors. These factors interact with each other and create existing stories, interpretations, and meanings about war. Understanding war narratives is crucial for comprehending the social dimension of war and studying its impact on public life.

## II. Types of War Narratives

As noted in the previous chapter, the formation of war narratives is influenced by many factors, including the political elite, the media, cultural factors, and social groups. These factors collectively create prevailing stories, interpretations, and meanings about war, which in turn shape public perception.

In this chapter, we will examine the main types of war narratives that emerge as a result of the interplay of these factors. War narratives are diverse and can be classified according to various criteria. One common classification distinguishes four main types: heroic narratives, victim narratives, just war narratives, and dehumanization narratives. This typology is based

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<sup>10</sup> Hobsbawm, E. J. (1990). *Nations and nationalism since 1780: Programme, myth, reality*. Cambridge University Press.

<sup>11</sup> Juergensmeyer, M. (2000). *Terror in the mind of God: The global rise of religious violence*. University of California Press.

<sup>12</sup> Davies, P. (2012). *The social psychology of war and peace*. Routledge.

<sup>13</sup> Tajfel, H. (1981). *Human groups and social categories: Studies in social psychology*. Cambridge University Press.

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on how the narrative portrays the parties involved in the war, the causes and consequences of the war, and the moral dimension of the war.

The heroic narrative emphasizes the courage, self-sacrifice, and victory of one's own side. It glorifies soldiers as heroes fighting to defend their homeland, for freedom, or other noble causes. In this narrative, the enemy is often presented as an evil force that must be defeated. The heroic narrative is effective in mobilizing public support for war and boosting the morale of soldiers. It is often used by the political elite and the media to stir patriotic feelings and legitimize war.<sup>14</sup> For example, during World War II, a heroic narrative was prevalent in the Soviet Union, which glorified the soldiers of the Red Army as heroes fighting against fascism. This narrative helped mobilize Soviet society to support the war effort and boost the morale of the soldiers.<sup>15</sup>

The victim narrative focuses on the suffering and losses of one's own side. It emphasizes the innocence and suffering of war victims caused by enemy aggression. In this narrative, the enemy is presented as a cruel and ruthless force that has harmed innocent people. The victim narrative is effective in evoking public sympathy for the victims of war and increasing hatred towards the enemy. It is often used by the media to highlight the humanitarian consequences of war and gain support from the international community.<sup>16</sup>

For instance, during the Rwandan genocide, a victim narrative was prevalent that focused on the suffering and murder of members of the Tutsi ethnic group. This narrative helped evoke sympathy from the international community towards the Rwandan people and intensify hatred towards the Hutu extremists.<sup>17</sup> The just war narrative justifies war as a righteous struggle for higher purposes, such as freedom, democracy, justice, or the preservation of international order. In this narrative, one's own side is presented as a force for good, fighting against evil.

### III. Social Consequences of War Narratives

As discussed in the previous chapters, war narratives are not merely a collection of objective facts, but rather social constructs shaped by political, media, cultural, and social factors. These factors collectively create the prevailing stories, interpretations, and meanings about war, which influence public perception. The type of narrative, whether heroic, victim-based, just war, or dehumanizing, determines how society perceives war, identifies heroes and victims, and understands the causes and consequences of war.

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<sup>14</sup> Moskos, C. C. (1970). *The American enlisted man*. Russell Sage Foundation.

<sup>15</sup> Overy, R. (2004). *The dictators: Hitler's Germany and Stalin's Russia*. W. W. Norton & Company.

<sup>16</sup> Lifton, R. J. (1973). *Home from the war: Vietnam veterans: Neither victims nor executioners*. Simon and Schuster.

<sup>17</sup> Gourevitch, P. (1998). *We wish to inform you that tomorrow we will be killed with our families: Stories from Rwanda*. Farrar, Straus and Giroux.

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In this chapter, we will analyze the social consequences of different types of war narratives. These consequences can be both positive and negative, and often depend on the specific social and political context.

***Strengthening/Weakening Social Cohesion:***

War narratives can either strengthen or weaken social cohesion. For example, a heroic narrative that emphasizes a common enemy and national unity can strengthen social cohesion and solidarity. Within this narrative, soldiers are presented as heroes fighting to defend their homeland and freedom, which unites society around a common goal and ensures their mobilization to support war efforts.<sup>18</sup>

On the other hand, narratives that emphasize conflict between internal groups or discrimination against minorities can weaken social cohesion and lead to social polarization. For example, a dehumanizing narrative that characterizes the enemy as an inhuman creature can exacerbate ethnic or religious conflict within society. Such narratives contribute to the reinforcement of stereotypes and prejudices, which lead to mistrust and hostility between different groups.<sup>19</sup>

***Deepening Social Inequality:***

War narratives can contribute to the deepening of social inequality. For instance, a heroic narrative that emphasizes the heroism of soldiers may neglect the suffering and losses of war victims. This can lead to unequal distribution of resources and increased social inequality. On the other hand, a victim narrative that focuses on the suffering of war victims can be used to justify the marginalization and discrimination of certain groups.<sup>20</sup>

***Normalization of Violence*** War narratives, especially those that glorify violence and characterize the enemy as an inhuman creature, can contribute to the normalization of violence in society. This can manifest in an increase in aggressive behavior, the justification of violence, or the use of violent methods to resolve conflicts. The dehumanization narrative prevalent during wartime, which demonizes the enemy, can reduce people's sensitivity to violence and increase their tolerance of it.<sup>21</sup>

***Psychological Trauma:***

War narratives, especially those that focus on the horrors and suffering of war, can cause psychological trauma in both war participants and other members of society. This can manifest

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<sup>18</sup> Bar-Tal, D. (2000). *Shared beliefs in a society: Social psychological analysis*. Sage.

<sup>19</sup> Staub, E. (1989). *The roots of evil: The origins of genocide and other group violence*. Cambridge University Press.

<sup>20</sup> Bourdieu, P. (1984). *Distinction: A social critique of the judgement of taste*. Harvard University Press.

<sup>21</sup> Huesmann, L. R. (1986). Psychological processes promoting the relation between exposure to media violence and aggressive behavior by the viewer. *Journal of Social Issues*, 1 42(3), 125-139.



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as fear, anxiety, depression, post-traumatic stress disorder, or other mental health problems. The victim narrative, which emphasizes the suffering of war victims, can lead to feelings of fear and helplessness in society.<sup>22</sup>

The social consequences of war narratives are diverse and complex. They depend on the type of narrative, the social context, and individual characteristics. Studying war narratives is important for understanding the social dimension of war and mitigating its impact on society.

### CONCLUSION

The study of war as a social phenomenon reveals that war narratives play a crucial role in shaping public opinion. These narratives, created through the interaction of the political elite, the media, cultural factors, and social groups, not only reflect the existing reality of war but also actively participate in its construction. The article identifies four main types of war narratives: heroic, victim, just war, and dehumanization narratives. Each type presents a different perspective on the parties involved in the war, the causes and consequences of the war, and its ethical and moral aspects. This diversity of war narratives contributes to its complex and multifaceted impact on society.

The research highlights the significant social consequences of war narratives. Narratives can contribute to both the strengthening and erosion of social cohesion, the deepening of social inequality, the normalization of violence, and the infliction of psychological trauma. These diverse consequences clearly demonstrate that war narratives are not neutral and can significantly influence social dynamics.

The findings underscore the necessity of critical analysis of war narratives. A deeper understanding of narratives not only helps us better comprehend the social dimension of war but also enables us to mitigate its negative impact on society and promote peaceful development.

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<sup>22</sup> Herman, J. L. (1992). *Trauma and recovery*. Basic Books.

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## PEOPLE PROFESSIONALS AND INCLUSIVITY IN THE WORKPLACE

Konstantine Petriashvili<sup>1</sup>

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### ABSTRACT

The importance of professionals in an organization cannot be overstated. They should benefit the organization, society, and themselves by creating goodwill and wealth for the company, developing others, and building a strong and qualified work environment. To stay relevant and up-to-date in their work, professionals should engage in Continuous Professional Development (CPD), which can include attending workshops, training courses, conferences, self-directed and online learning.

Personal values such as equality, valuing others, and fairness are crucial for people professionals as they approach their work. Ensuring equality in the workplace is vital, as is valuing others, which can help build positive relationships among co-workers. Fairness ensures that all employees have the same opportunities and access to resources and opportunities. Management should establish rules for discussions and provide a method for presenting ideas, ensuring that all employees understand what is expected of them and how they can contribute.

Employees may voice concerns about ethical standards or regulations, such as instances of discrimination or harassment in the workplace. To address such concerns, organizations should have whistleblowing policies in place that provide employees with a safe and confidential means of reporting such issues.

Incorporating ethical principles into Human Resources (HR), Learning and Development (L&D), Organizational Development (OD) practices in the workplace is known as ethical people practices. Organizations have a responsibility to treat employees with dignity and respect, viewing them as a valuable resource. One way to address the shortage of diversity in the workforce is to implement diversity and inclusion programs that include workshops, training, and recruitment processes aimed at increasing diversity. Additionally, measures such as flexible working hours and cultural celebrations can promote diversity and inclusion within the workplace.

**Keywords:** Professional person, Inclusivity, Fairness, Continuous Professional Development (CPD), Whistleblowing, Learning and Development (L&D), Organizational Development (OD)

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<sup>1</sup> Head of the International and Regional Security Course at the Defense and Security Training-Analytical Center, Colonel of LEPL – Defence Institutional Building School, PhD of Social Sciences

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## INTRODUCTION

All organizations need more professionals. All managers express their desire to have more professional employees. But how to determine who is a professional in the company? Does the employee turn into a professional at work after working for a long time or after completing specific qualification courses? And is there anything to measure when a servant can be a professional? Is there anything to estimate when a servant can become a professional?

The formation of best practices in businesses, the significance of luring and keeping qualified workers, and the application of inclusive behaviors and ethical standards in the workplace are all covered in the present article. Making an employee a "professional" takes a lot of effort and time.

Organizational units in the public and private sectors should pay attention to this issue. The expanding tendencies in the globalization of corporate and technological ties, which disturb isolation and monotony for state entities as well as business structures, make the study relevant.

The organization's everyday operations are increasingly incorporating policies that are open, integrative, and compatible with external actors. Additionally, it is crucial for all firms to have a "professional" employee in this activity.

The paper's research aligns with the Associate Learning & Development Program (Level V) of the Chartered Institute of Personnel and Development (CIPD). The article presents the conclusions drawn from the analysis of the problem.

An employee is referred to as a "professional" when co-workers and managers see them as competent and qualified specialists. Professionals ought to benefit him, the company, and the community. They must build the company's reputation and fortune while working to help others grow.

People's practices in today's society have brought many areas where professional employees are needed. Among them, HR has become a multidisciplinary service that needs to combine various functions and tasks. Accordingly, the areas that are necessary for the proper functioning of the organization require the inclusion of "people professionals," such as Learning and Development (L&D), Organizational Development (OD), Organizational changes, recruitment, the implementation of information systems in HR management, and others.<sup>2</sup>

Today, professionals are perceived as unwavering defenders of professional standards (“Why we call it the people profession | CIPD,” n.d.). People who protect the organization's values, are loyal to their work, are distinguished by objectivity, law-abiding behavior, and

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<sup>2</sup> (“Professional courage and influence | CIPD Profession Map,” n.d.)

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critical thinking, are always directed toward the development of themselves and the people around them and are honest and diligent in their work.

## MAIN PART

### People's professional implications for CPD

Continuous Professional Development (CPD) is an ongoing effort to keep one's knowledge and skills up-to-date and relevant to their work. This can include attending training courses, workshops, and conferences, self-directed learning, and online learning. Reflective practice is a way to improve personal and professional development by critically reflecting on past experiences, considering new perspectives, and making changes to future actions.<sup>3</sup> Both CPD and Reflective Practice are essential for professionals to continuously develop their skills, stay current in their field, and improve their practice for better outcomes.<sup>4</sup>

The role of a people professional is evolving from administrative duties to more strategic positions that require a people-focused approach. They need to understand employee needs and expectations and address them effectively. Technology has impacted the role of people professionals, making it imperative for them to be tech-savvy and familiar with various HR technologies.<sup>5</sup> Specialized job titles, such as Chief Happiness Officer, Chief Heart Officer, and Lead People Data Scientist, have emerged in the field of people management to reflect these changes.

The changes in the role of a people professional have also impacted the nature of CPD activities. CPD activities must reflect the demands of a more strategic and tech-savvy role. This includes developing digital skills and strategic and data-driven thinking. CPD activities are becoming more flexible and accessible, emphasizing self-directed and online learning, allowing professionals to keep their knowledge and skills up to date while balancing their work and personal commitments. Technology is changing how CPD is delivered and accessed, with online learning platforms and mobile apps becoming more common, offering professionals the opportunity to learn and develop their skills at their own pace from anywhere.<sup>6</sup>

### Ethical values in the organization

Personal values such as equality, valuing others, and fairness influence how you approach your work as a people professional.<sup>7</sup> Equality is essential in the primary workplace. Regardless of an employee's background or identity, equity helps everyone have the same opportunities. By promoting equality in the workplace, the organization creates a more

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<sup>3</sup> ("Continuing Professional Development (CPD)," n.d.)

<sup>4</sup> ("Reflective Practice in CPD activity – what does it really mean? | The CPD Certification Service," n.d.)

<sup>5</sup> (Rolfe, 2017)

<sup>6</sup> ("The Future of: Digital Technology for CPD," n.d.)

<sup>7</sup> ("Core behaviours | CIPD Profession Map," n.d.)

inclusive and diverse work environment where all employees feel valued and respected. (“Equality, diversity and inclusion,” n.d.)

Valuing others is crucial to me because it helps me build positive relationships among co-workers. When employees feel appreciated and respected by me, they trust me more, and the work is more efficient. Fairness gives all employees the same opportunity and access to resources and opportunities.<sup>8</sup> For me, a fair environment is an essential part of the organization's culture. Fairness increases employees' motivation and involvement in achieving the common goals of the organization.

One example of employees contributing to discussions in an informed, clear, and engaging manner could be through an open forum. This provides a secure and confidential venue for workers to express their ideas, thoughts, and comments.<sup>9</sup> To ensure that the talks are well-informed, management should give frequent updates on pertinent issues and encourage staff to conduct their own research and gather knowledge. Management should establish rules on the topics that are open for debate and the method for providing ideas to clarify the conversations. This ensures that all employees understand what is expected of them and how to contribute.

To make the discussions more fascinating, management may encourage employees to share their own experiences and perspectives and provide opportunities for cooperation and teamwork.<sup>10</sup> This contributes to a more collaborative and inclusive workplace atmosphere where all employees feel appreciated and engaged.<sup>11</sup> (See figure 1)

## Professional courage

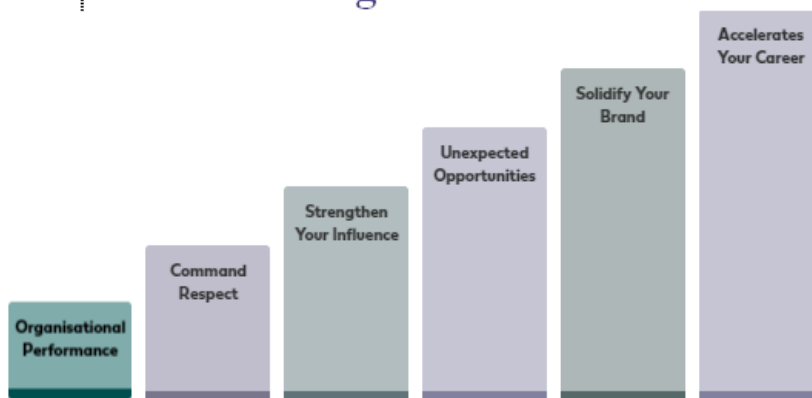


Figure 1

<sup>8</sup> ("7 Ways To Exhibit Fairness in the Workplace | Indeed.com," n.d.)

<sup>9</sup> (Admin, 2020)

<sup>10</sup> ("Creating Engagement Through Discussion Forums," 2018)

<sup>11</sup> ("5CO03 - Week 1: Professional and ethical behaviours in the context of people practice - Your study activities | Avado Learning," n.d.)

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Being courageous as a people professional, ensuring vital processes are followed, and continually improving practices are critical to delivering the greatest outcomes for workers and the business.<sup>12</sup>

Improving HR processes: This might involve evaluating and upgrading HR rules and procedures, streamlining the recruiting and selection process, or launching new employee engagement programs.

Improving L&D practices: This might entail launching new training and development programs, upgrading current ones, or expanding possibilities for on-the-job learning and development.

Improving OD practices: This might include examining and upgrading Organizational structures and procedures, enhancing communication and cooperation, or introducing new employee well-being initiatives.

Speaking up about unethical or discriminatory practices: If an employee observes or encounters unethical or discriminatory activity, it is critical to speak out and bring the situation to the attention of the appropriate authorities.

Ensuring compliance with rules and laws: Human resources experts must ensure that the business complies with all applicable laws and regulations, such as equal opportunity legislation, health and safety requirements, and data protection laws.

The use of ethical and successful HR, L&D, and OD practices in the workplace is referred to as good people practices. Attracting and keeping top personnel, offering chances for employee development, creating a healthy work environment, and maintaining compliance with laws and regulations are all part of this.<sup>13</sup> Organizations may enhance employee satisfaction, enthusiasm, and engagement by implementing effective people practices, resulting in greater efficiency and success.

### **Can someone disobey the law or moral standards?**

A scenario of discrimination or harassment in the workplace might be an example of employees voicing concerns about problems with ethical standards or regulations. (Boatright and Smith, 2017, pp. 65–81) For example, a worker may observe, or experience discrimination based on gender, color, or religion and is hesitant to speak out about it.

In this case, the employee can voice their concerns using the organization's whistleblowing policy, which provides workers with a secret and safe way to express any issues about unethical behaviors or violations of business policies or regulations. Policies or leadership techniques of the business, such as the CIPD values and Code of Conduct, can advise

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<sup>12</sup> (Kohnen, 2006)

<sup>13</sup> ("Chapter8 - The professional and ethical approach to HRM and L and D.pdf," n.d.)



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on how to manage such complaints and guarantee that the issue is dealt with swiftly and equitably.<sup>14</sup> Considering a different case, such as unfair dismissal, concerns can be raised by challenging the decision through the organization's internal grievance process.<sup>15</sup> If the organization does not have a grievance process, or if the process does not lead to a satisfactory resolution, it may also lead to the employee expressing dissatisfaction outside the organization. Leadership is also critical in resolving ethical problems and fostering an environment of openness and accountability. For example, they can give staff training and assistance on how to raise issues and resolve disputes, promote open communication, and encourage employee participation and feedback. Organizations may develop a good reputation and foster trust and respect among workers, customers, and stakeholders by addressing ethical problems and creating a culture of openness.

### **The role of social theories in the workplace**

Ethical people practices refer to the application of ethical principles in HR, L&D, and OD practices in the workplace. These practices are based on the belief that people are a valuable resource, and that organizations are responsible for treating employees with dignity and respect.

Daniel H. Pink, in his book "Drive: The Surprising Truth About What Motivates Us," argues that people are motivated by three factors: autonomy, mastery, and purpose.<sup>16</sup> By applying ethical people practices, organizations can create a work environment that supports employee autonomy, mastery, and purpose, leading to increased motivation and engagement.

Abraham Maslow's Hierarchy of Needs theory also supports the argument for ethical people practices.<sup>17</sup> The theory suggests that people have basic physiological and safety needs, followed by love, esteem, and self-actualization. Organizations can help employees fulfil their needs and support their overall well-being by providing a supportive and respectful work environment.<sup>18</sup> (See Figure 2)

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<sup>14</sup> ("Employee Voice | Factsheets," n.d.)

<sup>15</sup> ("Unfair Dismissal Q&As," n.d.)

<sup>16</sup> (Pink, n.d., pp. 29–45)

<sup>17</sup> ("Work motivation: an evidence review," n.d., p. 9)

<sup>18</sup> ("5CO03 - Week 2: Collaborative working strategies - Your study activities | Avado Learning," n.d.)

### Maslow's Hierarchy of Needs (1943)

There are five basic needs in Abraham Maslow's Hierarchy of Needs model: physiological, safety, belongingness and love, esteem and self-actualisation.

Select the hotspots below to read more.

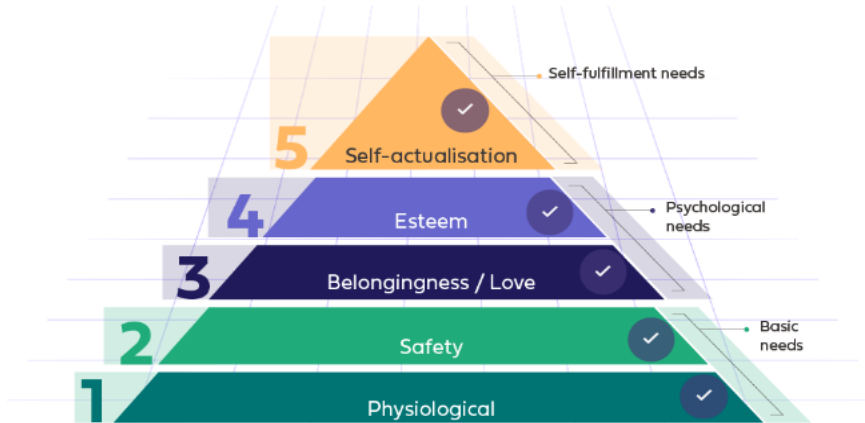


Figure 2

Rock's psychological ownership theory states that people naturally desire to claim ownership over their work, leading to a sense of pride and responsibility. Ethical people practices, such as fair treatment and opportunities for employee development, can foster a sense of psychological ownership and increase engagement and motivation.<sup>19</sup>

### The SCARF model

David Rock's SCARF model, developed in 2008, describes the social values that drive behaviour. Rock's neurological research suggests that some brain activity can be triggered by an individuals' perceptions about the way they are treated by other people.

There are five social concerns that drive our behaviours.

Select the hotspots below to read more.

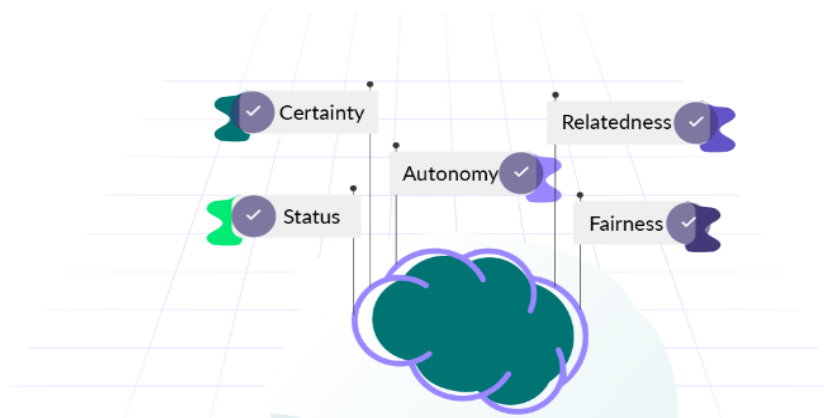


Figure 3

<sup>19</sup> (See Figure 3) (“5CO03 - Week 2: Collaborative working strategies - Your study activities | Avado Learning,” n.d.)

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Feeling involved, respected, and fairly treated at work has significant financial and personal advantages. Employees are more likely to be motivated, engaged, and devoted to their job when they believe their efforts are recognized and they are treated fairly. This, in turn, can result in higher job satisfaction, improved worker well-being, and lower illness rates. Furthermore, when employees feel valued, they are more likely to stay with the company, lowering turnover costs and increasing organizational stability. Additionally, when employees are healthy and happy, they are more likely to be productive, which leads to improved organizational performance.<sup>20</sup>

Organizations can address the shortage of diversity in the workforce by implementing a diversity and inclusion program. This program should include workshops, training, and recruitment processes aimed at increasing diversity and measures to promote diversity and inclusion within the workplace, such as flexible working hours and cultural celebrations. This solution creates an inclusive and fair work environment, increasing engagement and creativity and reducing legal risks.<sup>21</sup>

To design an inclusive solution, organizations must gather data from stakeholders and engage them through open communication. To check if the solution is inclusive, regular formal feedback sessions and informal communication channels should be used to gather input and identify any challenges.

By implementing these strategies, organizations can ensure that solutions meet the needs of all stakeholders and lead to a positive and productive work environment. The well-being and success of all employees can be supported by creating a diverse and inclusive workplace.<sup>22</sup>

To design an inclusive solution, research should be conducted to understand the needs and perspectives of employees, customers, and stakeholders. Stakeholders should also be engaged through open communication and consultation activities. Checking the solution for inclusiveness involves seeking feedback through formal and informal methods, such as surveys, focus groups, one-on-one meetings, and regular communication.<sup>23</sup>

These strategies help organizations design and evaluate solutions that meet the needs of all those they are aimed at, leading to a positive and productive work environment that supports the well-being and success of all employees.

## CONCLUSION

The role of professionals in organizations is to maintain professional standards and values while developing themselves and those around them. Technology has transformed CPD

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<sup>20</sup>(Pink, n.d., pp. 49–52)

<sup>21</sup> (Hamill, n.d.)

<sup>22</sup> (“How does employee well-being link to diversity and inclusion?,” n.d.)

<sup>23</sup> (“Formal and informal feedback in the workplace | Firmbee,” 2022)

delivery, with online platforms and mobile apps enabling learning at one's own pace from anywhere. Personal values and beliefs, particularly equality and fairness, play a crucial role in shaping work relationships and colleagues' interactions.

Effective people practices, established and maintained by people managers, can enhance employee satisfaction, enthusiasm, and engagement, resulting in greater efficiency and success. Such practices promote transparency, accountability, high ethical standards, and a positive work environment, leading to concrete financial and human advantages. Organizations can boost employee motivation, engagement, and performance by supporting well-being, creating a productive and sustainable workplace.

Designing an inclusive solution requires research to understand employees', customers', and stakeholders' needs and perspectives, with open communication and consultation activities involving stakeholders.

Recommendations:

Organizations should prioritize effective people practices, which promote high ethical standards, transparency, and accountability, for a positive and productive work environment.

Professionals should take advantage of online learning platforms and mobile apps for continuous professional development, enhancing their skills and staying up to date in their fields.

Personal values and beliefs, such as equality and fairness, should be prioritized in work relationships to promote positive interactions among colleagues and enhance employee satisfaction.

Organizations should support employee well-being to boost motivation, engagement, and performance and create a productive and sustainable workplace.

Designing an inclusive solution requires research, understanding, and engagement with employees, customers, and stakeholders to meet their needs and perspectives effectively.

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## THE ROLE OF BLOCKCHAIN IN THE DEVELOPMENT OF THE DIGITAL ECOSYSTEM

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Giorgi Kakashvili<sup>1</sup>

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### ABSTRACT

The digital ecosystem is evolving rapidly, driven by technological advancements that enhance communication, commerce, and innovation. Originally linked to cryptocurrencies, blockchain technology is now revolutionizing numerous industries by delivering secure, transparent, and efficient systems. Its decentralized structure removes intermediaries and ensures data integrity, positioning it as a crucial element of contemporary digital infrastructures.

This paper explores the core principles of blockchain, including decentralization, immutability, transparency, and smart contracts. Decentralization reduces risks associated with single points of failure, while immutability ensures data accuracy. Transparency allows for public verification of transactions, promoting accountability. Smart contracts streamline processes by automating tasks, minimizing human errors, and removing the reliance on intermediaries.

Blockchain's applications in finance, healthcare, supply chain management, and education are discussed. In finance, decentralized finance (DeFi) platforms are revolutionizing traditional services. In healthcare, blockchain improves data security and interoperability, while in supply chains, it enhances traceability and reduces costs. In education, blockchain offers secure credential verification, reducing administrative burdens.

However, blockchain faces challenges, including scalability, regulatory uncertainty, and environmental concerns. High energy consumption of certain consensus mechanisms and fragmented regulatory frameworks hinder its broader adoption. Addressing these issues is crucial for blockchain's continued growth.

Looking forward, the fusion of blockchain technology with artificial intelligence (AI) and the Internet of Things (IoT) is set to open up innovative possibilities for automation and efficient data management. The rise of decentralized applications (dApps) further highlights blockchain's potential to enhance security and user control over data. Blockchain provides substantial potential for driving innovation, enhancing efficiency, and ensuring transparency across multiple industries. By overcoming challenges, blockchain can drive the evolution of the digital ecosystem, creating a more secure and inclusive digital future.

**Keywords:** Blockchain, Digital Ecosystem, Decentralization, Smart Contracts, Transparency, Innovation.

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<sup>1</sup> Associate Professor of Bachelor's Program in Informatics of LEPL-David Aghmashenebeli National Defence Academy of Georgia



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## INTRODUCTION

The technological revolution of recent decades has given rise to the modern digital ecosystem, primarily characterized by platforms and users. Communication, commerce, and innovation increasingly depend on these digital platforms, which play a central role in how information is exchanged, business is conducted, and technology is applied. As the role of digital platforms continues to grow, the demand for systems that are not only reliable but also transparent and efficient becomes more urgent. At this point, blockchain technology emerges as a pivotal innovation, offering robust solutions to address challenges in security, transparency, and efficiency across various applications. Blockchain is a disruptive force that offers a decentralized and secure framework capable of significantly improving the functioning of digital systems.

Initially linked to cryptocurrency, blockchain has since expanded into various other sectors, includes a wide range of sectors such as finance, supply chain management, healthcare, education, and beyond. One of blockchain's most powerful features is its ability to remove the need for trust between parties while increasing transparency. In doing so, it transforms traditional methods of managing, storing, and interacting with data. This shift enables the creation of more secure, efficient, and transparent systems, challenging conventional approaches to data management and business operations.

This paper seeks to explore how blockchain technology can enhance the digital ecosystem by focusing on its fundamental principles, use cases, advantages, and limitations. To start, it will delve into the core principles of blockchain, providing a clear understanding of its mechanics and how it integrates seamlessly into the broader digital world. This foundational knowledge will provide a solid basis for further exploration of specific industries where blockchain's transformative potential is already having a substantial impact, including critical sectors like healthcare, finance, and supply chain management, as well as numerous other fields.

In addition to exploring blockchain's current applications, this paper will critically examine the challenges the technology faces. These include regulatory barriers, which differ across regions and industries, as well as scalability issues that limit blockchain's ability to handle large-scale applications. The paper will also examine blockchain's potential to drive digital innovation, highlighting the opportunities it presents for future development across various sectors.

Ultimately, this paper aims to provide a comprehensive assessment of blockchain's role in transforming the digital environment. By addressing both its current impact and prospects, it will offer insights into how blockchain is shaping the evolution of interconnected systems and changing the way we manage and interact with data.

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## MAIN PART

### Core Principles of Blockchain Technology

Blockchain technology is built upon several core principles that distinguish it from traditional systems. One of the most fundamental features is decentralization. Unlike traditional systems that depend on a central authority, blockchain functions on a decentralized network composed of independent nodes, where each node participates in validating and maintaining the ledger. This decentralized structure enhances resilience, reduces the risk of a single point of failure, and provides a more secure environment for participants<sup>2</sup> (Nakamoto 2008).

Immutability is a fundamental feature of blockchain, ensuring that once information is added, it cannot be modified or erased without agreement from the entire network. This ensures data integrity, which is particularly valuable in applications like financial transactions and supply chain tracking, where accuracy is critical<sup>3</sup> (Zheng 2017). Additionally, blockchain's transparency allows for public verification of transaction histories, fostering accountability and reducing the potential for fraud (Mougayar 2016).

Blockchain introduces smart contracts automated programs embedded with predefined rules. These contracts run independently, executing specified actions when triggering conditions are satisfied, thereby reducing reliance on middlemen and the risk of human mistakes. For instance, in a property sale transaction, a smart contract ensures the automatic transfer of ownership once the buyer makes the payment<sup>4</sup> (Buterin 2013). This feature not only streamlines processes but also enhances trust and reduces costs by automating transactions (Pilkington 2017).

An example of a smart contract can be demonstrated using Solidity, a programming language tailored for creating smart contracts on the Ethereum blockchain:

```
// SPDX-License-Identifier: MIT
pragma solidity ^0.8.0;
contract RealEstateTransaction {
    address public owner;
    address public buyer;
    uint256 public propertyPrice;
    bool public transactionComplete;
```

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<sup>2</sup> Nakamoto, Satoshi. Bitcoin: A Peer-to-Peer Electronic Cash System. 2008

<sup>3</sup> Zheng, Zibin, Shaoran Xie, Hong-Ning Dai, Xiaohui Lu, and Hongzhong Li. "Blockchain Challenges and Opportunities: A Survey." *International Journal of Web and Grid Services* 14, no. 4

<sup>4</sup> Buterin, Vitalik. "A Next-Generation Smart Contract and Decentralized Application Platform." *Ethereum White Paper*, 2013

```
constructor() {  
    owner = msg.sender;  
    propertyPrice = 1000000; // 1,000,000 wei, s6 1 ether  
    transactionComplete = false; }  
function purchaseProperty() public payable {  
    require(msg.value == propertyPrice, "Incorrect payment amount.");  
    require(!transactionComplete, "Property already sold.");  
    buyer = msg.sender;  
    transactionComplete = true;  
    payable(owner).transfer(msg.value);}  
function getContractDetails() public view returns (address, uint256, bool) {  
    return (owner, propertyPrice, transactionComplete); }}
```

In this contract, the buyer sends the required payment, and the smart contract ensures that the payment is transferred to the seller once the conditions are met. This process is automated, secure, and recorded on the blockchain, ensuring that both parties can trust the transaction without relying on intermediaries. The use of Solidity makes the contract executable on the Ethereum blockchain, where it can operate autonomously.

### **Blockchain's Role in the Digital Ecosystem**

The digital ecosystem refers to the interconnected system of technologies, platforms, and stakeholders that collaboratively create value in the digital age. This ecosystem is constantly evolving, driven by rapid technological advancements, and is supported by several key components that enable seamless interactions and innovation.

Data infrastructure is the backbone of the digital ecosystem, consisting of systems that manage data storage, processing, and transmission. Cloud computing, edge computing, and data centers are essential for ensuring data is accessible, scalable, and secure. Blockchain technology serves a vital purpose by enabling decentralized data storage and providing robust mechanisms for secure information sharing, reducing the reliance on centralized systems and enhancing trust across digital platforms (Tapscott Don 2016).

Connectivity is crucial for communication between devices, systems, and users in the digital ecosystem. High-speed internet, 5G technology, and IoT networks are vital for maintaining continuous information flow. Blockchain complements these technologies by enabling secure peer-to-peer communication and providing frameworks for decentralized management of IoT devices, enhancing the overall connectivity of the ecosystem.

Digital platforms and applications form the interface through which users interact with the digital ecosystem. These include services like e-commerce, social media, and online education. Blockchain integration within these platforms ensures greater security,

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transparency, and efficiency. Decentralized applications (dApps), for example, use blockchain to offer censorship-resistant, trustless alternatives to traditional services, enhancing user experience and security (Nakamoto 2008).

The digital ecosystem is driven by its users individuals, businesses, and governments. Blockchain technology empowers users by offering tools for secure transactions, digital identity management, and transparent governance. It empowers individuals to take greater ownership and control of their personal data and strengthens trust in digital interactions, benefiting both personal and business activities<sup>5</sup>.

Governance and regulation are essential to maintaining stability and fairness within the digital ecosystem. Blockchain aids in creating transparent, tamper-proof systems for voting, compliance, and contract enforcement, offering a more efficient and reliable approach to governance. However, the decentralized nature of blockchain challenges traditional regulatory models, prompting the development of innovative policies to adapt to these changes.

The digital ecosystem thrives by integrating various technological components that promote collaboration, innovation, and efficiency. Blockchain's role in enhancing security, transparency, and decentralization is pivotal in driving the ecosystem toward greater sustainability and inclusivity.

Blockchain technology is rapidly transforming industries across the global economy. By improving efficiency, security, and transparency, blockchain addresses longstanding challenges and creates new opportunities. Its impact extends across various industries, such as finance, supply chain management, healthcare, education, and real estate, where it drives innovation and delivers transformative solutions.

The financial industry was among the earliest adopters of blockchain technology. Digital assets like Bitcoin and Ethereum showcase blockchain's ability to enable direct transactions between individuals, bypassing the need for intermediaries. In addition to cryptocurrencies, decentralized finance (DeFi) platforms are reshaping conventional financial systems by providing peer-to-peer lending, borrowing, and trading options without relying on traditional institutions. As of 2024, the total value locked (TVL) in DeFi platforms surpassed \$80 billion, underscoring blockchain's growing influence on the financial world.

Blockchain also plays a crucial role in streamlining cross-border payments, reducing transaction costs and settlement times. The World Bank reports that blockchain could lower remittance fees by up to 5%, potentially saving billions of dollars for individuals and businesses globally.

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<sup>5</sup> Don Tapscott, Alex Tapscott, *Blockchain Revolution: How the Technology Behind Bitcoin Is Changing Money, Business, and the World*, 2016

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In supply chain management, blockchain boosts transparency, improves product traceability, and strengthens security. By documenting each transaction on an unchangeable ledger, it guarantees product authenticity and minimizes the chances of fraud. For example, Walmart employs blockchain to trace the origin of food items, resulting in a remarkable 96% decrease in the time required for food recalls. A study by IBM also shows that companies employing blockchain for supply chain management report a 20% reduction in operational costs.<sup>6</sup>

### **Challenges, Limitations, and Future Prospects**

Blockchain addresses several critical challenges in the healthcare sector, especially in terms of data protection and system compatibility, blockchain ensures that patient records are stored on a secure, immutable ledger that prevents unauthorized alterations., blockchain ensures data integrity while enabling seamless information sharing between healthcare providers. Deloitte estimates that blockchain technology has the potential to save the healthcare sector as much as \$100 billion each year by enhancing data management and minimizing fraud.<sup>7</sup>

Blockchain technology is making strides in education by enabling secure credential verification and promoting lifelong learning. Academic institutions can issue blockchain-based certificates, ensuring their authenticity and preventing tampering. A report by UNESCO suggests that blockchain could streamline the verification process for over 50 million graduates each year, significantly reducing administrative costs and delays<sup>8</sup>.

Blockchain is poised to transform the real estate sector by simplifying property transactions and enhancing transparency. Smart contracts can automate tasks like property transfers and lease agreements, reducing reliance on intermediaries. According to PwC, blockchain technology can cut transaction times by up to 50% and reduce associated costs by as much as 20% (PwC 2022).

Blockchain's impact on these sectors demonstrates its potential to drive innovation, enhance efficiency, and address longstanding challenges. By providing solutions to key issues across industries, blockchain not only reshapes individual sectors but also contributes to the creation of a more interconnected and resilient digital ecosystem.

Blockchain technology offers numerous advantages that are contributing to its rapid adoption across various sectors of the digital ecosystem. One of the primary benefits is enhanced data security. Blockchain's use of cryptographic methods provides strong security, greatly minimizing the risks of data breaches and unauthorized access. This is made possible

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<sup>6</sup> (IBM 2024)

<sup>7</sup>(Deloitte 2020)

<sup>8</sup> unesco, education and blockchain, 2022

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by the unchangeable nature of the data once it is recorded on the blockchain, ensuring it remains tamper-proof and protected.

In addition, blockchain helps reduce operational costs by eliminating intermediaries. Blockchain reduces the need for third-party intermediaries by automating processes with smart contracts self-executing agreements where the terms are embedded directly in the code, which streamlines operations and improves efficiency.

Another key benefit is the ability to securely manage digital identities. Blockchain offers a structure that strengthens privacy and lowers the likelihood of identity theft. It enables individuals to retain control over their data, ensuring its authenticity and minimizing the risk of fraud.

The decentralized nature of blockchain also encourages innovation. By providing an open and transparent infrastructure, it promotes the development of new business models and applications. This has led to significant technological advancements across various industries, such as finance, supply chain management, and healthcare.

However, despite its potential, blockchain technology faces several challenges. One of the primary obstacles is its technical complexity. Blockchain networks, especially those using proof-of-work consensus mechanisms, experience issues with scalability. High transaction costs and slow processing times limit blockchain's ability to support large-scale applications effectively.

Another challenge is regulatory uncertainty. The regulatory environment surrounding blockchain is fragmented and often conflicting across different regions. This creates difficulties, particularly in sectors such as finance and healthcare, where strict compliance requirements are necessary for adoption.

Furthermore, blockchain's environmental impact is a growing concern. Some consensus mechanisms, like Proof of Work, require substantial computational power and energy, raising concerns about the technology's carbon footprint. This issue is being addressed through the development of more energy-efficient alternatives, but it remains a challenge for broader adoption.

Looking ahead, blockchain's potential to shape the digital ecosystem is immense. One of the emerging trends is the advancement of scalability solutions. Innovations such as sharding and layer-2 solutions are addressing blockchain's scalability challenges by improving efficiency, reducing transaction costs, and enhancing accessibility.

Moreover, the combination of blockchain with cutting-edge technologies such as artificial intelligence (AI) and the Internet of Things (IoT) is creating new possibilities for automation and efficient data management. This convergence can drive the development of smart systems, enabling decentralized automation that is both secure and transparent.

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The rise of decentralized applications (dApps) is another key trend. These applications are already being implemented across a range of sectors, from gaming to healthcare and finance, where they offer enhanced security, transparency, and user control over data. The increasing adoption of dApps is fueling blockchain's integration into everyday business processes. Blockchain is also gaining traction in emerging markets, particularly in providing financial services to the underbanked. By offering secure, low-cost banking solutions, blockchain is fostering greater economic inclusion, enabling individuals in underserved regions to access vital financial services.<sup>9</sup>

### CONCLUSION

Blockchain technology lies at the core of the digital transformation, offering powerful opportunities for change and innovation. By combining decentralization, transparency, security, and automation, blockchain tackles major challenges faced by modern systems while building trust and improving efficiency. Its application across sectors like finance, healthcare, supply chain management, and education demonstrates its immense potential to transform business operations and drive value creation.

However, fully realizing blockchain's potential requires overcoming several technical and regulatory challenges. Investments in scalability solutions, environmentally friendly consensus methods, and clear legal guidelines are necessary for its continued growth. Additionally, collaboration among governments, industries, and researchers will be key to accelerating blockchain's adoption and integration into the broader digital ecosystem.

As the digital world keeps advancing, blockchain will certainly be pivotal in driving progress and fostering innovation. Its ability to build trust, promote transparency, and eliminate inefficiencies positions it as a key factor in shaping the future of digital infrastructures. By embracing blockchain's capabilities and addressing its challenges, we can open up new avenues for economic development, social impact, and technological progress, laying the foundation for a more secure, inclusive, and innovative digital tomorrow.

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## ARTIFICIAL INTELLIGENCE, ETHICAL CONSIDERATIONS, FUTURE TRENDS AND CHALLENGES

Levan Nikoleishvili,<sup>1</sup> Thornike Zedelashvili<sup>2</sup>

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### ABSTRACT

Artificial intelligence has somehow become the force that has transformed various sectors, including the military. Moreover, AI technology has revolutionized the military with its ability to rapidly process large amounts of data, make decisions, and analyze complex patterns.

Analyzing the question of how it is used and what ethical norms exist in military structures is not an easy task, because artificial intelligence components are supported by the defense sector in many directions - autonomous weapons and vehicle systems, intelligent command and control systems, predictive maintenance performance, logistics and maintenance services, cyber security, intelligence and surveillance, decision support systems, simulations and training, artificial intelligence applications and more. We have already discussed these issues in detail in the main part of the book, analyzed and discussed all the relevant issues related to the introduction, use and development of artificial intelligence technologies.

The development of artificial intelligence has raised hopes of bringing great benefits, which can be reflected on the one hand in the Internet of Things (IoT), a huge set of capabilities, such as unmanned surveillance and targeting, health monitoring of soldiers, situational awareness and other critical applications. The trend is that decisions in future wars will require seconds, minutes, or even hours rather than days and weeks. This implies that the operational environment should be analyzed. By using artificial intelligence and machine learning, rapid information can be delivered to the frontline, which also means rapid decision-making. The Internet of Military Things is known to encompass many different tools, from battlefield sensors and weapon systems, to surveillance, intelligence, communications, wearables, and sensors on ships, aircraft, tanks, and the body. These tools collectively share an unprecedented amount of information in real-time during the war. The success of this issue depends on the ability to collect and store huge amounts of data from thousands of devices. However, a much more problematic issue is to quickly understand this information and deliver results to the fighters so that said information is useful and can be used.

Ethical norms for the use of artificial intelligence differ from general ethical standards, artificial intelligence is more automated and scalable than most other processes, roles also include ethical risks - risk mitigation, legal risks reduction, human discrimination reduction, etc.

**Keywords:** artificial intelligence, ethics, norms, military field, security, war, challenges, technologies, defense, attack

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<sup>1</sup> Professor of Master's Program in Security Studies of LEPL-David Aghmashenebeli National Defence Academy of Georgia, Former Chief of the General Staff of Armed Forces, War Veteran, Doctor of Political Sciences, Colonel(R)

<sup>2</sup> Doctor of Political Sciences, employee of the Ministry of Justice, of the Digital Governance Agency, Department of Information Security, founder of the Internet publication "Leader" (lideri.ge), Invited lecturer of the Caucasus International University, orcid.org/0000-0003-2630-1779

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## INTRODUCTION

Ethical considerations are relevant worldwide, representing an important "tool" for eliminating the shortcomings of artificial intelligence and controlling its development. In the direction of artificial intelligence, we can present three main problems:

1. Biased data;
2. Improper use;
3. Wrong algorithm.

Often, when the data is biased, the analysis, response is limited and limited by the data the AI technology is working on. As for misuse, many issues can be combined, but the most important thing is who gets into the hands of this or that artificial intelligence tool. In the hands of hostile states and non-state actors, AI can become a weapon. If the algorithm is wrong, then the whole working principle is wrong, which cannot give us any positive results. In general, ethical norms represent various methods of what and how to do things correctly, according to standard. The only difference between ethics and the ethics of using artificial intelligence technologies is automation and scale. Various ethical challenges of artificial intelligence are automated due to its essence and nature. It is, in a way, like a piece of software, where partly the decision must be coded and partly not, or it can be completely coded, as is the software. Determining proper ethical norms in this direction is difficult, because even the desire to be automated can lead to a violation of ethical norms, because it can be aimed at power, wealth.

## MAIN PART

Here we can cite as an example the words of the ancient Greek philosopher **Aristotle**: "Ethical behavior is virtuous behavior, and virtue is the golden mean between two extremes." Therefore, we can say that ethics is the pursuit of perfection in virtues.

The German philosopher **Immanuel Kant** says: "We must act so that the maxim of our actions is a universal law."

This implies being guided by rules, acting, which is not a very comfortable issue for the work of artificial intelligence - it is difficult and even dangerous in some cases. Here there are also differences between ethics, as normative ethics, there are also many theories of applied ethics. For example, an action for the common, global good may be harmful to an individual person, which is difficult to regulate in practice. If we are guided by utility, in this case we may make individual damage permissible, but if we are guided by principles and put utility in the background, in this case the mentioned issue will be regulated differently. Principles and rules sometimes do not coincide with each other, they are mutually exclusive, therefore, they must be reconciled. There are also case-based methods based on which an ethical framework is

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developed. Since artificial intelligence is essentially automated, humanity is faced with an ethical framework that poses a major challenge. People who work on ethics and norms agree that ethics are the determinants of what is right and just. In addition, there are criteria that lead to differences of opinion - how to evaluate right and wrong. Often the theories related to ethics are contradictory.

The United States Department of Defense defines five key ethical principles for artificial intelligence, based on the recommendations of the Defense Innovation Council:

1. responsible/Responsible;
2. Fair (equal) /Equitable;
3. Traceable (visible) /Traceable;
4. Reliable/Reliable;
5. Governable.<sup>3</sup>

Adherence to the mentioned five basic ethical principles will significantly improve the use of new technologies that work on artificial intelligence algorithms in all fields, but it should be noted here that it is difficult to implement, implement and develop, because ethical standards and norms are not the same on a global scale, all countries are trying to observe own opinions and standard approaches. Consequently, the world is facing the development of new technologies that will be out of control. For example, scientists and technological mega-organizations are developing robots of their own creation, which are slowly appearing around us in all fields. According to some experts, robots will completely replace humans in wars in the future, countries will fight only with technological advances, where there will be minimal human casualties. To what extent this can be reality, we cannot say for sure, but the matter goes here. There are many nuances in this case, for example, robots will not run away from the war in times of danger, they will not disperse, they will not leave the army, they will not start robbing the population. In this case, it is easier for the military leadership to know what combat resources they have and what can be done. There is less chance of making a mistake and there will be no need to think about how to evaluate one's abilities, there will be no room for overestimation and illusion.

The idea of using robots instead of people in war appeared about a century ago, "In 1935, in Britain, the first unmanned aerial vehicle was invented, which was controlled by a remote control, it had the ability to cover 5 kilometers, and it had a maximum speed of 170 kilometers per hour. It was not a combat vehicle. In 1948, the first aircraft called AQM-34 was

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<sup>3</sup> Fish A., "IoT, AI, and the future battlefield", p. 1, 2022. <https://militaryembedded.com/ai/deep-learning/iot-ai-and-the-future-battlefield>

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invented, which could perform combat reconnaissance missions, it was a kind of test use, in 1951 mass production began."<sup>4</sup>

Now it's the 21st century, leading states, international organizations, mega-companies are involved in a kind of global race, developing walking robots, two-legged and four-legged combat vehicles. This process started "since 2005, when a four-legged combat robot that could carry a load of up to 110 kilograms was tested for the first time. One of the biggest disadvantages of this robot was the noise. Such a robot is useless for army standards. Of course, all this is improved over time, the first real military robot was created for reconnaissance and surveillance, which is equipped with a machine gun, grenade, laser weapon, speaker, siren and fire suppression system. The combat vehicle in question is semi-autonomous, it works in autonomous mode, although the operator can intervene in decisions."<sup>5</sup> Then, both defensive and offensive robotic autonomous systems for patrolling and cargo delivery were already developed and created.

Combat robots are gradually being introduced in the military field and their capabilities are expanding every day. From the point of view of use, the above, of course, provides great opportunities, but it is interesting to see how human replacement is possible soon. Robots working on artificial intelligence algorithms should replace highly qualified personnel in the military field, and the problem is also their high cost. At this stage, this fact remains a fact. The United States government claims to be building robots that will be low-cost and can be completely rebuilt or easily replaced if damaged or malfunctioned. However, it is still difficult to talk about this issue.

As for speculation and opinion, according to some experts, artificial intelligence and robotics will increase colossally in new military conflicts. For example, we have the Russia-Ukraine war, where almost all the technological achievements available today are used. Also, up for debate is how well AI technologies can compete with the human brain on the battlefield. Several researchers and experts claim that these systems are quite capable of competing with, and in some cases even surpassing, the capabilities of the human brain on the battlefield. Some in the military argue that this is not possible and that these technological advances can simply be an additional power for humans to have more enhanced capabilities on the battlefield.

Today, military robots on land are mostly wheeled vehicles. Their arsenal of weapons is diverse - autonomous cannons, guided anti-tank missiles, grenade launchers and so on. The unsolvable problem of the organizations working on these issues is the issue of control and

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<sup>4</sup> Leotronics, "Wars of the future: Can combat robots fully replace humans?", p. 1, 2023. <https://leotronics.eu/en/blog/wars-of-the-future-can-combat-robots-fully-replace-humans>

<sup>5</sup> Leotronics, "Wars of the future: Can combat robots fully replace humans?", p. 1, 2023. <https://leotronics.eu/en/blog/wars-of-the-future-can-combat-robots-fully-replace-humans>

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throughput. This means that the issue of maintaining communication channels in certain places is much more difficult than, for example, in the air, terrain and buildings present a kind of problem. Therefore, the frequency range of wheeled or other types of military robots is smaller than that of unmanned aerial vehicles. It is also a problem for wheeled and tracked robots to overcome uneven terrain, rubble, rocky areas, and stairs in between. Based on these problems, we can draw the conclusion that at this stage it is unrealistic to completely replace manpower with combat robots. However, they can be good helpers.

The current situation poses great challenges for humanity, as we have already discussed - in the direction of ethics, in the legal direction, in the direction of various artificial intelligence applications, in the direction of intellectual property and others. A full autonomous weapon system powered by artificial intelligence will be a challenge in itself - if something goes wrong, it doesn't matter whether it's a hacking of the system or simply being damaged and out of control. For example, if he starts raiding the civilian population or harming his own military, who will be responsible for all this, who will be judged? The questions are there, the answers are not.

## CONCLUSION

### Key insights and findings

Wars have always been waged and controlled by humans, they generally arise based on human disagreements, and humans, states, suffer losses. what is war It is an attempt by one party to forcefully change the behavior of the other party.

In general, we can say that the process that started a long time ago is now in an active phase, and it is impossible to stop it, and to adjust and comply with the regulations is difficult, but possible. All this requires joint, coordinated work and agreement. We focus on people, at the end of the day, no matter what technology exists, people are still responsible for everything, a lot depends on their decisions. If there ever comes a time when robots are in charge, it will probably be a different era, and now the main dominant is still man and his mind.

Industry 4.0, as people in the technology field call it, and which represents advances in automation, robotics and the Internet of Things, is invaluable, but the security challenges are also unequivocally increased, both in real and unreal, i.e. cyberspace. Caution, caution, and only caution, it behooves mankind, lest they make a fatal mistake. Let's face it, this will not be a mistake that the same humanity will be able to correct. Technologies, which we call modern today, tomorrow will already be stupid and backward compared to tomorrow, and of course, along with the good, the danger also increases. It is a fact that progress, technological revolution is accompanied by the possibility of setbacks and catastrophes, where there is success, there is also failure. What scientists do today, what they invent, implement and

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develop, it should be used for peaceful life, not for endless wars, massacres, nuclear threats and so on.

A robot - should it be a machine that replaces a person, or should it be an automaton that relieves a person of work and daily routine? Of course, it should be a machine that will not take away a person's livelihood, not replace it, but will help. Of course, the same desire exists in the case of war - it should be a defensive measure, not an offensive one. We understand that war has its laws, unfortunately, we are not yet living in an era when wars will no longer exist at all, but while it exists, while evil has not yet been defeated, what better way than to prepare for war to gain peace.

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**LEPL - DAVID AGHMASHENEBELI  
NATIONAL DEFENCE ACADEMY OF GEORGIA**

**WEB [www.defenseandscience.eta.edu.ge](http://www.defenseandscience.eta.edu.ge)**

**MOBILE: +995 5 77 19 92 05**

**E-MAIL: [nda@mod.gov.ge](mailto:nda@mod.gov.ge)**

**E-MAIL: [defenseandscience@eta.edu.ge](mailto:defenseandscience@eta.edu.ge)**

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