COGNITIVE SOVEREIGNTY AND SOCIETAL RESILIENCE IN THE AGE OF ARTIFICIAL INTELLIGENCE: STRATEGIC CHALLENGES FOR FUTURE CONFLICTS

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Abstract: The rapid development of artificial intelligence, digital technologies and increasingly sophisticated information influence operations is transforming the nature of contemporary conflicts. Although the technological means of warfare continue to evolve, the fundamental strategic objective remains unchanged: influencing an adversary's will, behaviour and decision-making capabilities. Drawing on strategic lessons from Croatia's Homeland War and contemporary hybrid conflicts, this essay argues that cognitive sovereignty is becoming a fundamental

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prerequisite for societal resilience and national security.

The paper examines the interconnected nature of physical, informational, digital and cognitive domains, emphasizing that strategic effects can be achieved not only through the destruction of physical capabilities but also by undermining an adversary's ability to perceive reality, evaluate information and make autonomous decisions. Particular attention is devoted to the concept of cognitive infrastructure, encompassing shared identity, institutional trust, social cohesion and independent judgment as essential foundations of societal resilience. Artificial intelligence is examined as both an instrument of cognitive influence and a potential source of cognitive dependence. The essay argues that education, critical thinking and the preservation of human decision-making autonomy must become strategic priorities. It concludes by calling for a broader understanding of national security in which the protection of cognitive sovereignty becomes an essential component of preparing societies for future conflicts.

Keywords: cognitive sovereignty; societal resilience; hybrid conflicts; artificial intelligence; cognitive warfare; cognitive infrastructure; strategic decision-making; information influence operations

Introduction:

We are aware of the speed at which modern, especially digital, technologies are evolving and affecting our everyday lives. Even toddlers are already playing with the smartphones, while primary school pupils are already using artificial intelligence. Every day we are witnessing new possibilities of its application. We need

to ask important ethical questions about the relationship between humans and AI, which are in line with Pope Leo XIV's recent encyclical Magnifica Humanitas[1] (The Magnificent Humanity). The Pope made a timely diagnosis and offered a series of questions to which we must quickly offer effective answers: what will the indiscriminate and non-humanistic application of AI do to man and society, both in the short and long term, and in what way does it already affect the ways in which we wage conflicts and wars in different domains of our lives? The more decisions we leave to algorithms about the use of force, the more the relationship between man, technology, responsibility and ethics changes. The decision-making process lies at the centre of adversarial information influence operations. This is precisely why we must protect it and why the development and preservation of cognitive sovereignty have become strategic imperatives.

Technology is changing. The way of warfare is changing. The means of attack are changing at an incredible speed. However, the basic logic of the conflict has not changed: imposing one's own will on the attacked target, using the means that the attacker holds that they can best meet his expectations at that moment. And here I would go back almost forty years, to the Croatian Homeland War.

Croatian experiences and strategies

When we organised our defence during Croatian Homeland war for independence[2], the war that was

[1] https://www.vatican.va/content/leo-xiv/en/encyclicals/documents/20260515-magnifica-humanitas.html
[2] https://hrcak.srce.hr/18568

imposed upon Croatia more than three decades ago, we had neither technological, informational, organizational, material nor numerical equality, let alone superiority. However, we had the will, we had the strength of spirit, we had unity, we had a strong leadership that represented authorities for itself: both in Dr. Franjo Tuđman as the directly elected President of the Republic by the people and in the spiritual head, Cardinal Franjo Kuharić. President Franjo Tuđman established the strategic principles[3] that laid the foundations for Croatia's eventual victory. An examination of contemporary conflicts demonstrates the continuing relevance and strategic significance of these principles.

The first was constant communication with all relevant actors and stakeholders. The goal of communication was not the communication itself, but the process and consequences that had to be produced: an effort to change the relations between different factors on the national and international scene positively in our favour, to reduce the level of their opposition to our fundamental interests towards giving support to them, and to increase the space (in terms of content, duration and positive consequences) for our mutual cooperation.

The second was the reduction of the adversary's ability to gather, organize and connect its own capacities to support the war effort. In other words, the isolation of the adversary from its partners, friends and allies, both in the financial, political, social, military, security, and social sense. Influencing internal divisions and the inability to plan and conduct conflicts and wars,

[3] https://hrcak.srce.hr/157108

and turning to internal problems that inevitably arise from the intensification of war activities, the increase in human, material, organizational and institutional casualties. Conflicts are never limited only to the directly conflicting parties. They include numerous other factors, from private individuals, nations, companies, corporations, states and international organizations. These factors need to be recognized, their roles determined and work to change their relations for their own benefit and against the interests of the adversary. By doing so, we accept the fact that conflicts take place both in space and in time, they have their cause-and-effect context, their dynamics and rules.

The third was prioritization. Crises, like conflicts and wars, are not one-dimensional. They are multi-level and multi-faceted. At the same time, we can have military, political, economic, informational, digital and social pressure. We had neither enough people, nor time, nor resources, nor knowledge, nor organizational prerequisites, nor external support to solve every crisis at the same time. Therefore, we had to be able to ask a few clear questions: what and who threatens us, what are our priorities, what is the priority of all priorities, what resources (already limited) will we allocate to eliminate the primary cause of the key problems? We dealt with causes, not consequences, because we wanted to win not only individual battles, but to emerge victorious, with the least possible losses and destruction, from the entire war. Because if we constantly deal with the consequences, and do not act on the causes, we spend our own capacities and allow the opponent to determine the intensity and direction of our actions. That is, we leave an area for manoeuvre to the opponent in which he manages this area as he wants, without us being aware

of it. This is the basic postulate of every attacker in modern hybrid conflicts.

Croatia won the defensive war because we better managed our already limited resources, internal and international relations, communication channels, information content, priorities, with strong willpower, spirit and unity, as well as clearly defined goals and tasks at the strategic level. We worked hard to increase the capacity to absorb and withstand shocks of volunteers and society to new conditions, processes and threats. For a long time, we could only rely on our internal capacities as well as on the capacities of Croatian, primarily economic, emigration. It was not until the end of October 1990 that we began to receive more concrete help from individual stakeholders of the international community. In every conflict and war, there are two parallel tasks: to increase our own ability to absorb shocks, and disturbances, and at the same time to reduce the ability of the adversary to absorb our defensive and offensive actions. This is perhaps the simplest definition of resilience in the conditions of modern conflict. We have succeeded in this. I am convinced that Ukraine and Europe will succeed in this. We have no choice but to win.

Challenges related to the development of AI

I will return to the challenge of AI. We need to prepare future leaders to learn, live and work with AI. Quality, efficient, sustainable, safe, reliable. Will AI surpass our ability? It already has[4]. Therefore, future generations need to be taught the responsible use of AI. We can already say that AI has become a human "cognitive

[4] https://www.sciencedirect.com/science/article/pii/S2444569X24001641

partner". AI is becoming a separate cognitive infrastructure that significantly affects the final learning outcomes and competencies of our students. But also, people in general. Therefore, AI should become a component of almost all courses during university education, i.e. a horizontal link of almost the entire study program. This, in turn, leads us to an important determinant of future studies: they must become more humanistic. Namely, the more information and knowledge we receive from AI, the more we will have to work on the development of human cognitive capabilities. Conceptual model of AI development might be like this:

1) The AI performs tasks.
2) The AGI handles a wide range of tasks.
3) SI surpasses humans in almost all cognitive comprehension and problem-solving abilities.
4) Autonomous Intelligence has the ability to independently plan, evaluate and act according to set goals.
5) HI understands situations and processes, shapes strategies, connects facts (or what it holds to be facts), makes decisions, and acts in a complex environment.

Excessive dependence on artificial intelligence may gradually erode students' cognitive abilities, particularly their capacity for independent reasoning, critical evaluation and intellectual judgment. When students routinely accept AI-generated interpretations without questioning their assumptions or verifying their accuracy, they risk becoming passive recipients of externally constructed representations of reality. That is why future students must be able to understand and

judge. We need to teach them to take responsibility for their decisions. In order to succeed in this, in the first learning phase, students need to learn without the right to use AI. Only when they understand how the world worked before AI, which led to positive changes through independent human thinking and teamwork, and when they understand the importance of thinking and asking the right research questions, they can use AI in their work. In this case, the knowledge offered by AI builds on the existing cognitive foundation. The better this foundation, the better the upgrade will be. A student must know their subject area, they must understand it, they must know when they made a mistake and why. We must educate people who know not only how to use AI, but also when to question it, when to reject its conclusions and when to make decisions without it. Only then can the use of AI give the desired results. AI should dare to want and know how to use it, but decisions should still be made by a human.

Artificial intelligence changes the way conflicts and wars are fought, but it does not change the reasons why conflicts and wars are initiated. If the goal of war is to influence the behaviour of the opponent, his decisions, reduce his ability to recognize bad decisions, then the impact on human decision-making is as strategically important as the physical destruction of his abilities. This is where we come to a new dimension of warfare: cognitive.

On cognitive sovereignty

What if the adversary no longer needs to destroy our physical ability to manage crises? What if it can influence us so that we make a decision (or more of

them) that will render this ability useless? And that is why I have been talking for a long time about the existence of four strongly interconnected domains of living and acting: physical, informational, digital and cognitive. In physical space, we live, work, protect or destroy values, knowledge, abilities. In the information space, we collect data, produce, control and distribute information. The digital space allows us to do this faster, more precisely and on an incomparably larger scale. However, the final effect often occurs in the cognitive space – in the human being. A space where a person makes decisions that have certain effects in all domains, both directly and indirectly. Especially in human perception, assessment, decision, behaviour, action, acceptance of consequences. Whoever manages to influence this process can achieve a strategic effect, victory in the war, without firing a shot. This is the wisdom that we can harness since Sun Tzu.

That is why it is no coincidence that in modern conflicts, enormous resources are invested in information and cognitive influence operations. If we compare the cost of investing in the development of a single unit of military technology that has the goal of destroying an opponent's physical capability with the cost of influencing the decisions of the people who use that ability, we will see a completely different economy of conflict.

A modern combat system can cost tens or hundreds of millions of euros. Let's take the example of the Russian SU 57[5] (Felon) fighter, whose export price (according to estimates) is about 100 million euros. Let's compare it with the average salary of a journalist in, for example,

[5] https://en.wikipedia.org/wiki/Sukhoi_Su-57

Serbia (because Serbia has a very high capacity to absorb and withstand shocks for accepting Russian propaganda narratives and politics), which is about 1000 euros. How long can Russia maintain its activities in the information space of Serbia (but also of states, societies and media that frequently and uncritically transmit information from that space, bring it into their own information space; one because of political interests, others because of the increase in clicking)? For decades, with a large number of journalists (or those who call themselves as such) on their payroll. This shows that with small financial expenditures/investment (compared to investments in military assets) in shaping the information space, Russia achieves the ability to operate effectively in multiple information and cognitive spaces for a long time. Why physically destroy an adversary's ability when you can influence their people who decide whether to use it? Why spend enormous resources on physical deterrence, i.e. occasional offensive actions with a single fighter jet, when relatively cheaper actions can reduce the political will of the target audience to act together?

This is one of the reasons why we need to seriously understand contemporary Russian information influence operations in Europe. RT, Sputnik and various media networks of influence are only one part of this broader ecosystem from the spectrum of hybrid threats. The Russian approach does not necessarily create its own factors. It is enough to identify existing social cracks, discontent and networks of influence and connect them to narratives that correspond to their own strategic interests. The most successful influence operation is not the one in which the attacked person says what the attacker tells him, but the one in which the attacked

person begins to say what he has concluded, based on the actions of the attacker, believing that this opinion and the consequent decision is entirely his. We can justifiably ask the question: what is the price of defending our informational and cognitive sovereignty? Perhaps an even better question is: do we have informational and cognitive sovereignty?

If you can get your opponent to: give up the will to defend their own family and identity, not make decisions or make wrong ones without being aware of it, to doubt their partners and allies, to lose trust in the institutions of their state and community, to refuse to support key national interests, then your/our opponent does not have to use physical force at all. It is unnecessary for him. War and conflict can be won by destroying the opponent's physical and weapon capabilities. But it can also be won by convincing the opponent that these same defensive as well as offensive capabilities should not be used.

From this point we can draw its definition: Cognitive sovereignty is the ability of individuals, groups, institutions or/and societies to independently perceive reality, critically evaluate information and knowledge, form judgments and make decisions in accordance with their own legitimate interests, values and objectives, without being subjected to decisive external manipulation.

We must recognize that we live in an imperfect world in which individuals, institutions and societies are continuously exposed to various forms of information manipulation by different actors. Cognitive sovereignty represents the ability to recognize manipulation, critically evaluate its sources and objectives, and

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preserve autonomy in decision-making despite such pressures. This is the true strength and goal of cognitive influence operations: man is at the same time the most important target and the most important resource of any defence and security system. We at the Dr. Franjo Tuđman Defence and Security University are particularly aware of this.

Key Critical infrastructure

The protection of critical infrastructures is essential for the functioning of society today. I am of the opinion that there are only four real key critical infrastructures on which our lives depend, four systems fundamental for the survival of a community of people:

1) Production and distribution of water necessary for physical survival
2) Production and distribution of food necessary for physical survival and economy
3) Production and distribution of energy and energy sources necessary for functional survival
4) Identity as a necessary prerequisite for the social and political survival of the community.

While water, food and energy sustain the physical and functional existence of society, shared identity, institutional trust and social cohesion sustain its collective capacity to act, resist coercion and recover from crises. Identity, together with the cognitive processes through which individuals, groups, and communities interpret reality, constitutes a particularly important target of contemporary hybrid threats. By undermining shared identity, institutional trust and social cohesion, an adversary may weaken a society's

capacity for collective action without necessarily destroying its physical infrastructure.

If we connect all of the above, we can talk about the cognitive infrastructure of society that makes that society more resilient, stronger, which can repel the attacker from the will to attack it. Cognitive infrastructure would include and imply mutual trust of society in institutions and vice versa, the associated social community cohesion, a constructive and to a significant extent a common understanding of reality, a common identity, the ability to recognize information influence operations, autonomy and sovereignty in decision-making and monitoring their implementation or realization. It is this cognitive infrastructure that we must protect today more than ever before. And this has been the motto of this forum since our first day: Strengthening Democracy, Protecting Freedom and Society.

What can we do? We must increase our own, primarily cognitive, capacity to absorb and withstand shocks. We must be able to accept the first strike consequences, disruptions, information content manipulation, cyberattacks, political pressures or social crisis as such, without losing the ability to make sovereign decisions. At the same time, we must reduce the ability of the adversary to absorb our offensive actions, which is one of the fundamental logics of any conflict: to increase our own resilience and reduce the opponent's.

An important advantage in future conflict will be on the side of those who manage to develop the ability to respond quickly and effectively based on an early understanding of what is really happening, the ability to

recognize upcoming threats early, recognize and understand processes and factors, their intentions, there and our weaknesses and vulnerabilities, and the grand strategy behind the perceived threats. Given that no one is able to win future conflicts and wars if they are left alone, the necessity of cooperation and constructive dialogue on national and international level imposes itself.

This is where artificial intelligence can be both a great opportunity and a great danger. It can help analyse huge amounts of data and information, quickly recognize patterns that we either don't see or will see after a significant passage of time. However, let's not forget that the adversary also uses AI, perhaps better, and has its own models. What's worse, we may be using AI models that are directly or indirectly owned and controlled by the attacker so that the attacker knows what we know, or think we know, what we are planning. By doing so, we give the adversary, without being aware of it, the ability to gain cognitive sovereignty over us.

Recommendations

What to do in that case? Return to human side of our life. AI already knows much more than we do, it analyzes much, much faster; analyzes much, much larger amounts of information; sees deeper than us, but, for now, it offers only partial context. A human needs to understand the context, understand the intentions of another human, know how to ask the right questions in the right place at the right time, take responsibility for making decisions and accept the fact of learning from their consequences. In present, and especially in future conflicts, it will be essential who better understands how AI changes

humans, society, decision-making and the very nature of conflict. In past wars, we tried to surpass the opponent in speed of movement and firepower. In future conflicts, we will also have to surpass him in the speed of understanding, adapting and making useful decisions.

The strategic purpose of education must evolve. In an era increasingly shaped by AI, information manipulation and cognitive warfare, education must go beyond the transmission of knowledge. It must develop and cultivate people who can think independently, recognize manipulation, understand complex realities and make responsible decisions even when information is incomplete, contradictory or deliberately distorted.

One of the key institutional principles important for understanding new conflicts and wars are the special study programs that we, University are developing, and the intelligence community: we for the education of future leaders, and the intelligence community for their timely and reliable familiarization with the necessary facts about what is happening and why so that they can act before the consequences become strategic.

In future conflicts and wars, the winner will not be the one who has the most and best AI and technology, but the one who will best understand how to use them, manage all cognitive domains, achieve information and technological superiority, integrate them into a meaningful unity, and at the same time preserve the ability of one's own human to understand the world, evaluate information and make responsible decisions sovereignly.

The human mind has become a critical battlefield of modern conflict. This is why we must educate,

continuously develop and protect human cognitive capabilities, not merely react to their erosion after the damage has been done. The defence of cognitive sovereignty is becoming a fundamental prerequisite for the effective use of all other national security capabilities.

Technology has transformed the conduct of warfare, but it has not eliminated the central role of human judgment. Ultimately, it is the ability to understand reality, evaluate information and make responsible decisions that determines whether technology becomes an instrument of security or a source of vulnerability and destruction.

A society whose members possess knowledge but lack the ability to exercise independent judgment is a society vulnerable to external influence and information manipulations. Technological superiority cannot compensate for the loss of human cognitive autonomy. The development of independent thinking and decision-making is becoming a strategic requirement for national/homeland security, cognitive sovereignty and societal resilience. Therefore, we should do our best to Strengthen Democracy, Protect Freedom and Society.

Literature:

1. Pope Leo XIV, ENCYCLICAL LETTER MAGNIFICA HUMANITAS - ON SAFEGUARDING THE HUMAN PERSON IN THE TIME OF ARTIFICIAL INTELLIGENCE https://www.vatican.va/content/leo-xiv/en/encyclicals/documents/20260515-magnifica-humanitas.html
2. Bilić, Ivan. "Kronologija raspada SFRJ i stvaranje Republike Hrvatske do 15. siječnja 1992.." National Security

and the Future 6, br. 1-2. (2005): 73-184. https://hrcak.srce.hr/18568

3. Tuđman, Miroslav. "The principles and determinants of Dr. Franjo Tuđman's national strategy." National Security and the Future 16, br. 1 (2015): 9-91. https://hrcak.srce.hr/157108

4. Colther, Cristian; Doussoulin, Jean Pierre. Artificial intelligence: Driving force in the evolution of human knowledge, Journal of Innovation & Knowledge, Volume 9, Issue 4, 2024, ISSN 2444-569X, https://doi.org/10.1016/j.jik.2024.100625.

5. Sukhoi 57, https://en.wikipedia.org/wiki/Sukhoi_Su-57

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