



# Geopolitical Report



## **The Malicious Use of Artificial Intelligence and International Psychological Security**

Volume I

Year 2020

A publication of ASRIE Analytica

Online ISSN: 2532-845X

## Geopolitical Report

A publication of ASRIE Analytica

The first volume of *Geopolitical Report* titled *The Malicious Use of Artificial Intelligence and International Psychological Security* is the result of the experience of some Russian researchers who attended in 2019 conferences and events in Great Britain analyzing the malicious use of Artificial Intelligence (MUAI) and its impact on international psychological security.

Website: [www.asrie.org](http://www.asrie.org)      Email: [info@asrie.org](mailto:info@asrie.org)

Online ISSN: 2532-845X

Date: January 2020

Editor: Giuliano Bifulchi

Author(s): Darya Bazarkina, Kaleria Kramar

### Scope

ASRIE Analytica is a geopolitical analysis platform whose aim is to transform current events into valuable Intelligence for the decision-making process. Our goal is to interpret what is happening in the world filtering the amount of data and information which we consider not important in order to understand the contemporary international system and forecast future developments. ASRIE Analytica is a project of the Italian media agency Notizie Geopolitiche.

ASRIE Analytica's publication, *Geopolitical Report*, aims at investigating the current geopolitical and socio-cultural events and trends which are shaping the world of international relations, business and security creating a debate by allowing scholars and professional experts to share their views, perspectives, work results, reports and research findings. One can submit manuscripts, analytical reports, critical responses, short articles, commentaries, book reviews to [info@asrie.org](mailto:info@asrie.org). Information about the organization's goals, activities, projects and publications which can be freely downloaded can be found on the website [www.asrie.org](http://www.asrie.org).

Copyright © 2020 ASRIE Analytica

All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of the publisher, except in the case of brief quotations embodied in critical reviews and certain other noncommercial uses permitted by copyright law. For permission requests, write to the publisher, addressed "Attention: Permissions Coordinator," at [info@asrie.org](mailto:info@asrie.org).

## **Table of contents**

Preface ..... 4

“Psychological Warfare, New Technologies and Political Instability in Contemporary World” – European Conference on the Impact of AI and Robotics ..... 6

Lecture “Artificial Intelligence: Opportunities and Risks” in London ..... 17

## Preface

Our first publication in 2020 is dedicated to the Malicious Use of Artificial Intelligence (MUAI) and the impact it might have on international psychological security. In particular, ASRIE Analytica decided to give the opportunity to some Russian researchers specialized in Strategic Communication, Psychological Warfare, Security, and Information Warfare, to report their activities in Great Britain when they attended several events in the United Kingdom to focus the attention of the academic world and the media on MUAI and possible future consequences on the international psychological security. These researchers are among the international experts and scholars with whom ASRIE Analytica is in contact and have developed several types of research, monitoring and analysis projects.

This volume of Geopolitical Report might be interpreted as a combination between Russian researchers' personal experience and activities in Great Britain and academic research since in this document are highlighted outcomes of scientific investigation. Thanks to this report the international public opinion might be acquainted with the Russian guidelines and investigation in Strategic Communication and understand the Russian promotion activities abroad in a country, the Great Britain, which has been living the struggle of finding its identity after the Brexit.

Among the Russian researchers who attended conferences and events in the United Kingdom, we are going to report the activities of Prof. Evgeny Pashentsev, leading researcher at the Institute of Contemporary International Studies of the Diplomatic Academy of the Ministry of Foreign Affairs of the Russian Federation, director of the International Centre for Social and Political Studies and Consulting (ICSPSC), coordinator of the GlobalStratCom international strategic studies associations project, the Russian – Latin American Strategic Studies Association (RLASSA), European-Russian Communication Management Network (EU-RU-CM Network), Dr Olga Polunina, a researcher at the ICSPSC, and Vitali Ramanouski, a doctoral student at the Diplomatic Academy.



## “Psychological Warfare, New Technologies and Political Instability in Contemporary World” – European Conference on the Impact of AI and Robotics

On October 30 – November 1, 2019, Russian researchers contributed to the mini-track “Psychological Warfare, New Technologies and Political Instability in Contemporary World” at the European Conference on the Impact of AI and Robotics hosted by [EM-Normandie Business School](#), Oxford, UK.

The [motivation to launch ECIAIR](#) was the result of the maturing of Artificial Intelligence and robotics, particularly of the cognitive computing kind, which is producing an unprecedented revolution in the role of work and professionals in society. Therefore, this conference, instead of studying the technology itself, aimed at focusing on its consequence on knowledge work and society.



Figure 1 Poster of the Conference organized at the University of Oxford

The conference resulted in 44 papers which are the outcomes of the research from experts and scholars in Australia, Belarus, Canada, China, Denmark, Finland, France, Germany, India, Iran, Iraq, Italy, Japan, Lithuania, Netherlands, Norway, Poland, Portugal, Romania, Russia, South Africa, Spain, Sweden, Taiwan, Thailand, UAE, UK and USA.



Figure 2 At the ECIAIR plenary session on October 31<sup>st</sup>, 2019





Figure 3 Some mini-tracks at ECIAIR 2019

One of the mini tracks at ECIAIR was about on *the Malicious Use of Artificial Intelligence: New Challenges for Democratic Institutions and Political Stability*. The mini track was chaired by Prof. Evgeny N. Pashentsev. During the mini track was highlighted that the possibilities for Artificial Intelligence (AI) are growing at an unprecedented rate. AI has many areas of social utility: from machine translation and medical diagnostics to electronic trading and education. Less investigated are the areas and types of MUAI which should be given further attention. It is impossible to exclude global, disastrous, rapid and latent consequences of MUAI because it implies the possibility of using multiple weaknesses of individual and human civilization as a whole. For instance, AI could integrate with a nuclear or biological attack, and even improve its effectiveness. However, AI could similarly be used as the most efficient defence instrument. The international experience in monitoring online content and predictive analytics indicates the possibility of creating an AI system, based on the information disseminated in the digital environment, that could not only indicate threats to information and psychological security in a timely manner but also offer scenarios of counteraction (including counteracting offensive weapons' systems).

Suggested topics of the mini track included but were not limited to:



- Dynamic social and political systems and the malicious use of AI
- AI in civil and military conflicts
- AI enhancing terrorist threats and counter-terrorism response
- Role and practice of the malicious use of AI in contemporary geopolitical confrontation
- Predictive analytics and prognostic weapons
- Risk scenarios of the malicious use of AI
- Spoofing, data extraction, and the poisoning of training data to exploit vulnerabilities under the malicious use of AI
- Artificial Intelligence Online Reputation Management (ORM)
- AI in Lethal Autonomous Systems (LAWs):
- Deepfakes and their possible influence on political warfare
- Amplification and political agenda-setting
- Emotional AI in political warfare
- Damage reputation through bot activities
- Synthetic information products containing software modules that introduce targeted audiences into depression and/ or encourage people to perform strictly defined actions
- Challenges of the malicious use of AI
- Ways and means to neutralize targeted information and psychological destabilization of democratic institutions using AI.

It is interesting to note that in Oxford is located a Future of Humanity Institute (FHI), a multidisciplinary research institute at the University of Oxford. Academics at FHI bring the tools of mathematics, philosophy and social sciences to bear on big-picture questions about humanity and its prospects. The Institute is led by Founding Director

Professor Nick Bostrom. FHI's big picture research focuses on the planet – term consequences of human actions today, and the complicated dynamics that are bound to shape our future in significant ways. A key aspect of this is the study of existential risks – events that endanger the survival of Earth-originating, intelligent life or that threaten to drastically and permanently destroy our potential for realizing a valuable future. FHI focus within this area lies in the impact of future technology capabilities and impacts including the possibility and impact of Artificial General Intelligence or 'Superintelligence', existential risk assessment, population ethics, human enhancement ethics, game theory.

At ECIAIR 2019 Russian researchers contributed to the analysis of the MUAI from the point of view of threats to the international psychological security and political stability. Prof. Evgeny Pashentsev in his paper *Malicious Use of Artificial Intelligence: Challenging International Psychological Security* analysed new threats to international psychological security (IPS) posed by the MUAI by aggressive state and non-state actors in international relations. Compared with the positive applications of AI, MUAI as related to security threats is a much less-studied area.

Prof. Pashentsev defined and established the IPS domain. According to him, it possible to describe IPS as protection of the system of international relations from negative psychological influences associated with various factors of international development. The latter include targeted efforts by various state, non-state and supranational actors to achieve partial/complete, local/global, short-term/long-term, and latent/open destabilization of the international situation in order to gain competitive advantages, even though the physical elimination of the enemy.

Prof. Pashentsev proposed MUAI classifications based on implementability, territorial coverage, degree of damage, and speed and forms of propagation. The author laid out current and prospective MUAI-based threats to IPS: the creation of 'deep fakes', "fake faces", the damage to reputation through bot activities, the setting and amplification of a manipulative agenda, the use of prognostic weapons, etc. Factors that complicate the

minimisation of damage caused by state and non-state actors to IPS from MUAI are singled out. This study confirms that MUAI elevates threats to IPS to a qualitatively new level which requires an adequate assessment and reaction from society.

According to Evgeny Pashentsev, there are concerns associated with several obvious circumstances. Firstly, AI is not only a dual-use technology that can be used for both peaceful and military purposes. AI can, unlike other creations of the human mind, have both a positive-creative and a destructive impact on all aspects of human activity. Even incomplete imitation of human activity and partial transfer of the control functions to narrow AI make it a potential threat in the hands of intruders in all spheres of life. Secondly, the various sponsors of extremist reactionary organisations and terrorist groups will logically try to use the unstable dynamic equilibrium that human society enters not through the evil will of individuals, social groups, or classes, but through the objective laws of social development. This in itself is dangerous. However, it is precise because of the unstable dynamic equilibrium that small antisocial technically advanced organisations may, in a critical social environment, act more often at their own risk, and if they have AI capabilities, the consequences of such “autonomy” may become an additional threat to international security, including IPS.



Figure 4 Prof. Evgeny Pashentsev during his presentation at the conference

Thirdly, MUAI as a set of coordinated new or updated tools in HTSPW needs a coordinated response from socially oriented states, academia (combined efforts of researchers in different fields), and civil society. They need to provide the following: a list of current and future threats to the public consciousness through AI, an analysis of national practices in the application of AI in terms of the direct or indirect psychological effects on the political system for the purpose of destabilization, an evaluation of risks of MUAI against IPS by non-state actors with egoistic antisocial goals, clarification of the role of predictive analytics and prognostic weapons using AI in antisocial goals, and an analysis of the ways and means of neutralizing the purposeful psychological destabilization of political systems using AI. As has often been the case throughout history, a means of attack can be turned into an equally effective means of defence. Much will depend on how fast AI systems are adapted to protect the public consciousness.

The determination, analysis, evaluation, and clarification of MUAI threats to IPS will make it possible to formulate concrete recommendations in this area. The establishment

of an international research centre for a better understanding and counteraction to these threats is also desirable.

Not only AI but the whole range of new technologies require qualitative changes in human society, both at the level of state and public institutions and at the level of human individuals. Individuals themselves need qualitative changes in their mental and physical abilities, a new level of ethical norms, and social responsibility in order to use qualitatively new opportunities, minimise qualitatively new risks, and ensure the progressive development of society. The alternative to such changes is the self-destruction (rapid or relatively gradual) of humanity and the elimination of the possibility of the start of a new progressive civilisation, respecting its roots, but going forward in its development. Greater positive certainty, meaningfulness, and consistency in such a move into the future is the best medicine for the MUAI against IPS. Any uncertainty, hesitation, postponement of overdue decisions, and, most importantly, lack of strategic vision and appropriate action will play into the hands of asocial groups and lead to the rise of global instability.

In her paper *Is Artificial Intelligence Disruptive?* Dr Olga Polunina analyzed the risks and hazards of psychological security within the framework of the development of AI as one of the possible causes of controlled chaos in the modern world. According to the speaker, the social and political basis of many managerial methods are being changed from the point of view of their architecture because of information and communication technologies. In general global information databases, intellectual analytical systems and information technologies force specialists to deal with absolutely new kinds of decision making and prognostics either in social or political management. The genesis of the main areas of problem management and prognostics is connected as a rule with strict time limits and available media solutions.



Figure 5 Dr Olga Polunina presented her outcomes and research results

The paper also considers the problem of the nonstructural nature of modern data and the way that creates an additional challenge for the functioning of various systems. Data hygiene and a new philosophy of data structure are important elements of future advances and far-sighted strategies for most organizations. Big possibilities create big problems. One of them is inequality, but not only in the economic sense, but in terms of inequality in the access to information data, to control information data. It actually means that the advantages of the digital revolution, the Fourth Industrial Revolution and AI development are going to concentrate in the hands of an extremely small percentage of the population. This is dangerous for social and political stability. Dr Polunina concluded that under such conditions, the main way to maintain some balance is mutual development, co-operation and dialogue at least in the scientific sphere.

Vitali Ramanouski dedicated his paper to the topic *Possible Use of AI Technologies in Counterterrorism Responses by Iraqi Security Establishment*. The interrelated character of security threats and deep social transformations in the Iraqi society complicate

counterterrorism responses in the country. There is a significant risk of jihadi revival in historical insurgent strongholds in Iraq. Islamic State (IS) network-based structure is becoming more distributed and decentralized; its cells are gaining more independence in decision-making. Numbers of active fighter and sleeping agents are expected to increase with the fighters returning from Syria and new recruits from vulnerable and intimidated populations. The complexity of the environment and low predictability of its development trajectories require a system-based and holistic approach to the decision-making from the national and international counterterrorism structure operating in Iraq. Use of AI technologies by the Iraqi security institutions might contribute to the formulation of the decision-making policies based on a non-linear vision towards the security file in the country and make the implementation of the current counterterrorism strategies more effective. Though at present immature, AI technologies, not subject to cognitive specifics of human decision-making, can potentially become an invaluable tool in identifying key vulnerabilities of the enemies and changing the power balance on the battlefield. In the case study, the author examines the possible use of AI technologies in counterterrorism efforts of the Iraqi law enforcement establishment and ways of shifting power balance towards it in the fight against terrorist groups in Iraq.

The interrelated character of security threats and deep social transformations in the Iraqi society complicate the design and effective implementation of CT and social engineering strategies in Iraq. The complexity of the environment and low predictability of its development trajectories require a system-based and holistic approach to the decision-making. Use of advanced AI technologies by the Iraqi security institutions might contribute to the formulation of the decision-making policies based on a non-linear vision towards the security file in the country and make the implementation of the current CT strategies more effective.





Figure 6 Mr Vitali Ramanouski on the sidelines of the conference

## Lecture “Artificial Intelligence: Opportunities and Risks” in London

Prof Evgeny Pashentsev was invited by Dr Damian M. Bielicki, Director of the [Law & Technology Research Group](#) to deliver a lecture on November 5, 2019, in the Department of Law at Kingston University London. The topic of his presentation was: [Artificial Intelligence: Opportunities and Risks](#). The Law & Technology Research Group at Kingston University London, which organised this event brings together researchers, professionals, stakeholders and students, from legal and non-legal backgrounds, interested in the intersections between law and technology. It also organises events, including conference series, lectures and seminars on topics related to law and technology. The topic of artificial intelligence is one of the leading research topics within the Group. Kingston University is rather active in AI studies. For example, [Kingston University experts are exploring](#) how artificial intelligence could be trained to detect the early signs of oral cancer using a mobile phone app. Professors Sarah Barman and Paolo Remagnino have secured £146,000 for the two-year Medical Research Council-funded project, which will see them work alongside experts from the University of Malaya and Cancer Research Malaysia.

[Kingston University researcher](#) investigates how AI can help composers create new music. Choosing Irish folk music for the study – due to its relatively well-defined structure and a wealth of available data – the AI system was taught more than 23,000 tunes using a text-based music notation format. This enabled it to generate new tunes by drawing upon the patterns and structures it has learned. Research by Oded Dr Ben-Tal, senior lecturer in music technology at Kingston University, sought to discover how an artificial intelligence system could be used as a creative partner by musicians. The results were so impressive that some of the tunes will be performed live at a concert later

this month as part of the project, according [to Dr Oded Ben-Tal, senior lecturer in music technology at Kingston University](#).

In his lecture, Prof. Pashentsev emphasized that possibilities of AI and machine learning are growing at an unprecedented speed. These technologies have many extremely important areas of social utility: from machine translation to medical diagnostics. The speaker addressed only to such great consequences of AI development as:

- Intelligent automation
- Labour and capital augmentation
- Innovation diffusion
- Penetration in all spheres of production and everyday life

According to the speaker, the next years and decades will bring immeasurably more opportunities for such applications. To support his point of view Prof. Pashentsev addressed to some reports which provide enough data on that point. Thus, according to the report of the international company PricewaterhouseCoopers Middle East (PwC), published in Dubai during the World Government Summit, 14% of economic growth in the world will be provided through the use of artificial intelligence, which is equivalent to \$15.7 trillion. contributed to the global economy in 2030, more than the current output of China and India combined. Of this, \$6.6 trillion is likely to come from increased productivity and \$9.1 trillion is likely to come from consumption-side effects. To the greatest extent, the possibilities of AI to accelerate its growth according to the PwC will be able to benefit from China (up 26% of the country's economic growth at the expense of AI).

These positive aspects of the use of artificial intelligence are given attention by research teams in different countries of the world as well as leading international organizations. According to a new report published by Allied Market Research, titled “Artificial intelligence market by technology and industry verticals: global opportunity analysis and industry forecast, 2018–2025”, the artificial intelligence market accounted for

more than \$4 billion in 2016 and is expected to reach \$169 billion by 2025. In 2017, China published its “Next-generation artificial intelligence development plan”, which laid out plans to become the world leader in artificial intelligence, with a domestic AI industry worth almost \$150 billion. Delivering on its strategy on AI adopted in April 2018 the European Commission presented in December 2018 a coordinated plan prepared with member states to foster the development and use of AI in Europe. This plan proposes joint actions for closer and more efficient cooperation between member states, Norway, Switzerland and the Commission in four key areas: increasing investment, making more data available, fostering talent and ensuring trust. For the purpose of ensuring the accelerated development of artificial intelligence in the Russian Federation, as well as conducting scientific research in the field of artificial intelligence, the president of Russia Vladimir Putin signed a decree on the development of artificial intelligence in the Russian Federation. This document is Russia’s national strategy for the development of artificial intelligence (AI). The strategy sets out a number of short-term (to be completed by 2024) and medium-term (2030) qualitative goals designed to build Russia into a leading AI power.

Kingston University London

# Artificial Intelligence – Opportunities and Risks

**Key speaker:**  
**Prof Evgeny Pashentsev**  
Institute of Contemporary International Studies, Diplomatic Academy, Ministry of Foreign Affairs of the Russian Federation.

**Tuesday 5 November, 1-2pm**  
**Penrhyn Road campus**  
**PRJG2001**

[kingston.ac.uk/AI](http://kingston.ac.uk/AI)

Because the benefits of AI and investments in the branch are much more well known than the risks of AI, especially the MUAI connected with the threats to IPS. According to Prof. Pashentsev, Marxist Theory of Revolution, Tektology, Systems Theory, Action Theory, Punctuated Equilibrium Theory (PET) etc. are contributing today to the research of social dynamic systems. At the same time, insufficient attention is being paid to the comprehensive analysis of the issues of the unstable dynamic social equilibriums (UDSE), especially, in the context of random and targeted negative impacts in the field of strategic psychological warfare.

Prof. Pashentsev underscored the following attributes of UDSE:

- the rising poverty and social polarization in the world;
- increased unevenness in the economic and political development of the leading countries;
- the rising populism in politics in many countries;
- the rising clashes between different ruling elite factions on strategic choices;
- the rising tensions between the leading powers;
- the crisis in social sciences and the evident crisis of the current educational systems;
- the decline of strategic analytics in the process of state decision making in the leading countries;
- according to many surveys, there is a weakening of social confidence and trust in existing national and supranational political institutions, including for example the EU;
- the rising challenges coming from new technologies (for example mass unemployment may sharpen because of the implementation of AI, robotization) etc.

As a result, we are assisting at a rising gap between deeds, words and images in state policy, the rising threats for national and international psychological security (IPS) which could be reinforced in the consciousness of different target groups not only with

the help of traditional propagandistic tools but through MUAI against political stability and IPS.

MUAI can allow hostile actors to be more successful than so far in:

- *provoking a public reaction to a non-existent factor of national or international development* in the interests of the customer of psychological impact. The target audience sees something that doesn't really exist.
- *presenting a false interpretation of the existing factor* of national or international development and thus provoking the desired target reaction. The audience sees what exists but in a false light.
- significantly and dangerously *strengthening (weakening) public reaction to the real factor* of national or international development. The audience sees what exists but reacts inadequately.



**ASRIE Analytica**

**A project of Notizie Geopolitiche**

**Website:** [www.asrie.org](http://www.asrie.org)

**E-mail:** [info@asrie.org](mailto:info@asrie.org)

**Copyright © 2020 ASRIE Analytica**

**All rights reserved.** No part of this publication may reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of the publisher, except in the case of brief quotations embodied in critical reviews and certain other noncommercial use permitted by copyright law. For permission requests, write to the publisher, addressed “Attention: Permission Coordinator,” at [info@asrie.org](mailto:info@asrie.org).