Issue 37 | May 2, 2022

A biweekly newsletter on AI and autonomy developments in Russia

*CNA Russia Studies Program*

# HIGHLIGHTS OF ISSUE 37

- Prime Minister Mishustin addresses the State Duma and outlines five work priorities for the immediate future and 2022 for AI development and industry expansion.
- The Russian military is considering equipping its reconnaissance and strike drones with a digital catalog to automatically recognize NATO military equipment. IT-educated personnel are being advised on how to avoid military service and the draft.
- Most IT professionals are facing personnel shortages in Russia, and it can be seen most acutely in the AI development sector.
- China has taken several actions to reduce cooperation with Russia in the technology sphere. For example, Chinese partners of the Russian Academy of Sciences have paused cooperation with Russia's MGIMO University, and Huawei has furloughed Russian employees for a month and suspended new contracts with Russian operators.

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# GOVERNANCE AND LEGISLATION

## PRIME MINISTER MISHUSTIN DELIVERS A REPORT TO THE STATE DUMA

**In his speech to the State Duma on April 7, 2022, Mishustin emphasized the severity and unprecedented nature of the international sanctions but assured that the attempts to cripple the Russian economy will fail and instead have created a historical 'space of opportunities' for Russian development.** According to Mishustin, the economic growth during the pandemic has well prepared Russian foundations to develop its own industry. He explained the Russian government's high-priority plan for IT development launched under sanctions. Minister Mishustin outlined five short-term work priorities— ensure smooth operation of enterprises, expand business freedom, support vulnerable populations, saturate the market with goods, and provide sectoral support—with priority on guaranteeing the stable operation of enterprises and providing them with working capital. Authorities have already taken several measures in the tax sphere, simplified the public procurement system, and launched preferential lending programs: another 80 billion will be allocated to the issue in total, amounting to more than a trillion rubles in preferential loans. Government financial support will also be given to airlines/airports and railways, and a tourist cashback program will be extended to continually provide citizens with purchase vouchers for their expenses. Social payments and pensions will be increased, and minimum wages will also increase alongside a long-term increase in available jobs.

Authorities have apparently stopped the March panic so that excess demand fades while prices continue to rise; thus, the government must expand access to goods. Prime Minister Mishustin also ensured that measures are being taken to keep young IT professionals in Russia through the forementioned programs and other benefits to IT professionals and students. He assured that, overall, Russia remains on path to economic sovereignty, especially with the current task of achieving complete scientific and technological independence, and remains open to constructive dialogue with foreign companies to cooperate if they must leave the country.

Sources: "Мишустин призвал создавать условия для молодых IT-специалистов" [Mishustin urged to establish conditions for young IT specialists], RIA Novosti, April 7, 2022, https://ria.ru/20220407/it-1782288226.html. "Провал санкций и уроки пандемии. Мишустин выступил с отчетом в Госдуме" [The failure of sanctions and the lessons of the pandemic. Mishustin delivered a report to the State Duma], TASS, Apr. 7, 2022, https://tass.ru/ekonomika/14311487.

## RUSSIAN GOVERNMENT TO SPONSOR CREATION OF 30 DOMESTIC ENGINEERING SCHOOLS

**In early April, Russian head of government Mikael Mishustin announced the creation of 30+ engineering schools throughout Russian universities across the country.** These engineering schools will be developed in partnership with enterprises and industrial centers in their native

region. Planned course offerings include digital design, robotics, artificial intelligence, big data, digital twins, electric transport, and application software.

Mishustin claimed that these programs have been initiated to provide government support for training graduates to stay and work in their native region. Engineering students will have access to government-supported internship and mentorship programs at state corporations and Russian companies, such as Yandex, Rostec, Russian Railways, and KamAZ.

Source: "Правительство запускает проект по созданию инженерных школ" [Government launches project to create engineering schools], *Kommersant,* Apr. 11, 2022, https://www.kommersant.ru/doc/5304651.

## MASSIVE INCREASE IN FUNDING FOR RUSSIAN STATE AI DEVELOPMENT PLAN

**The State Planning Committee (Gosplans) plans to adjust the Russian federal project "AI before 2024" to account for sanctions impact.** The project was originally allocated 5.26 billion rubles, but this recently changed, to enable 1,200 AI development companies to access support in the amount of more than 17 billion rubles. In this announcement, Deputy Prime Minister Chernyshenko did not disclose the specific source of the extra funding. The main market participants that stand to utilize these funds and that are currently developing AI in Russia include Sberbank, MTS, Gazprom Neft, Yandex, VK, and RDIF. This money is intended to help support the progress in AI development that was initially hurt by major foreign companies banning and pulling funding from Russia.

Source: Tatiana Isakova, "Госпланы запутались в нейросетях" [The State Planning Committee became entangled in neural networks], *Kommersant,* Apr. 6, 2022, https://www.kommersant.ru/doc/5294266.

## MINISTER OF DIGITAL DEVELOPMENT UPDATES DUMA ON MINISTRY PROGRESS

**Shadayev spoke about the priorities of the ministry for 2022 in front of State Duma Committee on Information Policy, IT and Communications.** He reiterated the ministry's focus on internet accessibility, industry development, digital services, personnel training, and cybersecurity.

He spent the rest of the speech outlining details and progress in each of the above five categories. On internet accessibility he highlighted the Ministry of Digital Development's interest in rebuilding logistics to account for lost foreign support of telecom equipment. Minister Shadayev requested assistance from the committee to provide funds and materials to restructure logistics and help bolster access to the internet in less populated areas of Russia.

To continue with development of IT industry, the ministry initiated a new package of support measures, including the reduction of income tax to 0 percent by 2025, the extension of tax benefits to many IT companies, an increase in the number and amount of grants for innovation, and potentially the reduction of property tax on land for infrastructure companies.

To enhance personnel training, the Ministry of Digital Development will expand access to free online programming training for those that have lost their jobs and provide discounted training for those interested. They are also launching online programming training for high school students and anticipate training for more than 100,000 students.

Russia has introduced second-factor authentication on all public services, especially biometrics and banking, to enhance the cybersecurity infrastructure. There is also planned collaboration with Roskomnadzor to introduce large fines for businesses that have leaked personal data, a reoccurring issue for Russian industry and government.

Source: "Минцифры сформировало приоритеты на 2022 год. Презентация Шадаева" [The Ministry of Digital Development has formed priorities for 2022, Shadayev's presentation], Tadvisor.ru, Apr. 5, 2022, https://www.tadviser.ru/index.php/%D0%9A.

## MOSCOW INITIATES FINANCIAL SUPPORT PROGRAMS TO ADAPT DOMESTIC IT AND TECH TO SANCTIONS IMPACT

**The Russian government plans to allocate 21.5 billion rubles to support the IT industry from the Reserve Fund via Order no. 714-r, which was signed by Mishustin and published by the Russian government**. The money is planned to subsidize the interest rate on loans for organizations engaged in the field of digital technologies.

The plan is for these funds to be delegated to a variety of different business sectors ultimately providing incentives for the implementation of at least 75 digital transformation projects. Part of the funds will be sent to banks and credit institutions to reimburse them for lost income, while another section will go to preferential mortgages for employees of IT companies aged 22-40. Also included in this initiative is a provision on deferment from military service for IT specialists who received higher education in one of 75 specific specialties. Within this provision was an urgent recommendation to IT enterprises to send lists of their employees to the Ministry of Digital Transformation so that the names could be transferred to the Ministry of Defense to fall into the draft boards.

These measures are meant to stop a massive outflow of IT specialists from Russia and enhance public procurement against the backdrop of Russia's presence in Ukraine. This is an ongoing significant problem, given that, since 2013 the number of vacancies in the 40 leading domestic internet companies has grown more than five times. IT specialists are continuing to leave the country: in February 2022 around 70,000 left. Furthermore, the IT industry is one of the industries that suffered the most from cancellation of public procurement. And while it was claimed that this is not solely due to sanctions, it was blamed on import bans and depreciation of the ruble. The NIIAS was unable to acquire over 2,000 licenses for various Microsoft software and services because of inappropriate bids that were rejected. It is because of these issues that the Russian government is exhausting its economic support capabilities.

Sources: "Власти выделили российским ИТ-шникам 21,5 миллиарда из Резервного фонда" [Authorities allocated 21.5 billion to Russian IT specialists from the Reserve Fund], Cnews.ru, Apr. 04, 2022,

https://www.cnews.ru/news/top/2022-04-04_vlasti_vydelili_rossijskim; "В России с ужасающей скоростью растет число несостоявшихся госзакупок. Во всем виноваты санкции" [In Russia, the number of failed public procurements is growing at an alarming rate. Sanctions are to blame], Cnews.ru, Apr. 5, 2022, https://www.cnews.ru/news/top/2022-04-05_v_rossii_s_uzhasayushchej_skorostyu.

### MANAGEMENT OF THE DIGITAL ECONOMY PROJECT

**D-Russia.ru reports that the Analytical Center under the Government of the Russian Federation is no longer to be involved with the management of the new Digital Economy national program.** The "Digital Economy" program has been entrusted to the Federal State Budgetary Institution, under the jurisdiction of the Ministry of Digital Development, which follows an official Russian decree published Wednesday April 5, 2022, that made amendments to previous statements regarding the national program.

Source: "АНО «Аналитический центр при Правительстве РФ» исключена из управления нацпрограммой «Цифровая экономика»" [ANO "Analytical Center under the Government of the Russian Federation is excluded from the management of the national program "Digital Economy"], d-Russia.ru, Apr. 7, 2022, https://d-russia.ru/ano-analiticheskij-centr-pri-pravitelstve-rf-iskljuchjon-iz-upravlenija-nacprogrammoj-cifrovaja-jekonomika.html.

### MOSCOW CONTINUES DIGITIZATION EFFORTS AND PROMOTES IT STARTUPS

**The Moscow Innovation Agency continues to maintain efforts behind its project StartHub.Moscow, a technology startup support program that helps scale and develop promising IT solutions and projects that can compete with foreign services.** It is reported that this program is especially important in the current geopolitical atmosphere, because the overseeing Moscow Department of Entrepreneurship and Innovation Development is confident that it will help develop products and/or capabilities to substitute for foreign losses. According to records, participants supported by StartHub.Moscow in the previous two cycles have tripled their revenue.

Source: "Москва помогает технологическим стартапам создавать импортозамещающие технологии" [Moscow helps technology startups create import-substituting technologies], Cnews.ru, Apr. 5, 2022, https://www.cnews.ru/news/line/2022-04-05_moskva_pomogaet_tehnologicheskim.

## MILITARY AND SECURITY

### RUSSIAN MILITARY EXPLORES AI-ENABLED ADVERSARY RECOGNITION VIA ITS AERIAL DRONES

**The Russian military is considering equipping its reconnaissance and strike drones with a digital catalog to automatically recognize NATO military equipment.** According to a military

source quoted by the daily RIA Novosti, the catalog can help create a map with enemy locations directly on board the UAV that can then be shared with command-and-control posts.

RIA Novosti claimed that the catalog will include optical images of NATO weapons in the visible and the infrared ranges. The quoted source also stated that neural network learning algorithms can identify such military equipment samples in a wide variety of environmental conditions, including with a short exposure and when only part of a combat vehicle is visible. RIA Novosti did not go into further technical details, nor did it give the name of the MOD institution that could work on such a project. The idea of an AI-enabled aerial drone performing reconnaissance and onboard analysis had been discussed before, by Russian defense-industrial enterprises working on AI research and development for combat UAVs. The RIA Novosti claim also depends on a significant dataset of different types of NATO vehicles and military systems, something that could theoretically be compiled by the Russian military operating in Ukraine and other regions. The actual technical implementation of this claim deserves scrutiny – with so many Russian and Ukrainian UAVs battling over Ukraine, the idea of an autonomous target recognition is not that farfetched, but the time and resources needed for such a development may be beyond Russia's defense sector's immediate grasp, as it wrestles with the impact and fallout of global IT and high-tech sanctions.

Source: "Russian UAVs will be able to automatically recognize NATO equipment" (Источник: российские БПЛА смогут автоматически распознавать технику НАТО), RIA Novosti, Apr. 14, 2022, https://ria.ru/20220414/tekhnika-1783437321.html.

## RUSSIAN MILITARY IMPLEMENTS UAVS IN RECONNAISSANCE-FIRE/STRIKE COMPLEXES

**ISR and target designation remain the primary function of Russian aerial drones used in Ukraine today.** The Russian forces are using an entire line-up of UAVs for such tasks, including the ubiquitous Orlan-10, the most numerous military drone in Russian service. Russia's online newspaper *RG.ru* published a firsthand account of an Orlan-10 operator tracking Ukrainian military targets. The operator noted that his UAV located a Ukrainian artillery battery after a quick reconnaissance flight and the target coordinates from the UAV were then relayed to Russian long-range artillery units. After one Ukrainian target was destroyed, the rest of the force attempted to maneuver to avoid follow-up attacks. The operator claimed that his Orlan-10 tracked the Ukrainians for several hours before transmitting their coordinates to the Russian MRLS and artillery units, which delivered the final strike that supposedly destroyed the rest of this force. This tactic and concept of operations that utilizes UAVs as "eyes in the sky" for ground-based forces was honed by the Russian forces in Syria, and is now used widely by both Russian and Ukrainian militaries in the ongoing war. The actual efficacy of the Orlan-10 UAV may be questionable, given its high rate of attrition to the Ukrainian defenses, but as long as this relatively simple and cheap drone can guide Russian strikes and fires, it remains a potent weapon for the invading Russian force.

Source: "Orlan UAV operator discussed the hunt for the Ukrainian artillery force" [Оператор БПЛА "Орлан" рассказал об охоте за кочующей батареей ВСУ], RG.ru, Mar. 30, 2022, https://rg.ru/2022/03/30/operator-bpla-orlan-rasskazal-ob-ohote-za-kochuiushchej-batareej-vsu.html.

### THE ERA TECHNOPOLIS TO FURTHER ASSIST THE MILITARY IN AI RESEARCH AND DEVELOPMENT

**On April 8, 2022, Deputy Prime Minister Yuri Borisov held a meeting of the ERA Technopolis Governing Council, hosted by the Russian Defense Ministry.** During the meeting, an agreement was reached on the ERA's development of artificial intelligence technologies for the Russian armed forces. Borisov and his deputies also reviewed joint cooperation between the ERA and the Advanced Research Foundation (ARF, Russia's DARPA-like organization) on the development of AI technologies for the nation's military. The ERA Technopolis was created in 2018 by order of the Russian president to develop innovative military technologies, to cooperate with the public and private sectors on joint high-tech development, and to prepare young military officers and civilian employees for work in military-industrial enterprises and research institutions. Artificial intelligence and robotics research and development remain the ERA's top priorities, and the institution often cooperates with the ARF on testing and evaluation of such products and systems. CNA's May 2021 report *AI and Autonomy in Russia* discussed the relationship between the ERA and ARF, noting their relevance to the MOD's work on high-tech and AI. With the global sanctions impacting Russia's overall AI work, the MOD is seeking ways to maintain the current pace of innovation and research, which places ERA at the center of the nation's military R&D efforts. It is not clear how ERA may be affected, but the Borisov meeting drew all Russian majors working on AI and robotics, including First Deputy Minister of Defense Ruslan Tsalikov, Deputy Minister of Defense Pavel Popov, and representatives from Perspektiva, Kalashnikov, TsNIIMash, Rostec, Rosatom, and ARF enterprises, as well as other members of the nation's military-industrial complex.

Sources: "ERA Technopops will develop AI for the Russian Armed Forces" [В технополисе "Эра" будут развивать технологии искусственного интеллекта в интересах ВС РФ], Tass.ru, Apr. 8, 2022, https://tass.ru/armiya-i-opk/14321799; CNA Russia Studies Program, *AI and Autonomy in Russia,* CNA, May 2021, https://www.cna.org/CNA_files/centers/CNA/sppp/rsp/russia-ai/Russia-Artificial-Intelligence-Autonomy-Putin-Military.pdf.

# MARKETS AND PRIVATE SECTOR

### RUSSIAN NEWS ORGANIZATION INTRODUCES AI EDITORIAL ALGORITHM

**The Russian news organization, Lenta.ru, has introduced a new AI-based editorial program in a test run.** The algorithm automatically identifies topics that are potentially interesting for the audience, adapts texts for a wide range of readers—finding difficult words and sentences, and suggesting synonyms and alternative formulations—and then analyzes the coverage and speed

of distribution of published materials, as well as self-evaluating the effectiveness of the edits. If successful, the new program will improve the quality and efficiency of published information, and will improve the audience's ability to perceive it. In the future, the system is planned to be used on the resources of all federal publications of Rambler&Co.

Source: "The largest Russian publication Lenta.ru introduced an editor based on artificial intelligence" [Крупнейшее российское издание Lenta.ru внедрило редактора на базе искусственного интеллекта], *Ferra.ru*, Apr. 15, 2022, https://www.ferra.ru/news/techlife/krupneishee-rossiiskoe-izdanie-lenta-ru-vnedrilo-redaktora-na-baze-iskusstvennogo-intellekta-15-04-2022.htm.

## BIOMETRIC ID INFORMATION INTEGRATED FOR PURCHASES AT MTS STORES

**Customers at MTS physical stores can now be authorized to pay for products using facial recognition technologies.** Partnering with the Russian AI startup VisionLabs, MTS will now allow payment to go through automated biometric facial authentication without the need to present an ID card. This process will automatically confirm the customer's identity, speeding up the efficiency of purchases. As MTS specializes in products that require frequent uses of identification documents—changing phone numbers, purchasing and activating SIM cards, connecting and disconnecting services, and changing plans—the program is expected to reduce wait times and friction. In order to utilize the new service, customers must take a picture (termed a 'digital cast') of his or her face, which then is connected to an ID on file through MTS's 'Biometric Identification Platform.'

Source: "MTS began serving customers in stores using VisionLabs biometric technologies" [МТС начала обслуживать клиентов в салонах с помощью биометрических технологий VisionLabs], *CNews*, Apr. 14, 2022, https://www.cnews.ru/news/line/2022-04-14_mts_nachala_obsluzhivat_klientov.

## ROSTEC SIGNS AGREEMENT TO BUILD OUT 'INTERNET OF THINGS' NETWORK FOR WIRED SYSTEMS

**A new agreement signed between Rostec's Roselectronics and the electronics company TeslaSmart anchors plans to create interconnected 'reed switches' using the IoT network framework for industrial applications.** Reed switches are electrical switches operated by an applied magnetic field and are commonly used to create relays, switches, buttons, sensors, and automated indicators for physical equipment. Interconnecting reed switch infrastructure with IoT networked sensor technology will allow for major integration of automation into basic mechanical infrastructure. The agreement also suggests bringing Bluetooth technology into production as well. The new switches will be constructed at the Ryazan Metal-Ceramics Plant in Ryazan, which produces 14 percent of the world's reed switches currently and is a major market competitor globally.

Source: "Rostec will develop a new type of Internet of Things devices" [«Ростех» разработает устройства интернета вещей нового типа] *CNews*, Apr. 14, 2022, https://www.cnews.ru/news/line/2022-04-14_rosteh_razrabotaet_ustrojstva.

## GOVERNMENT OF MOSCOW ANNOUNCES DATASET ACCESS FOR AI STARTUPS

**The government of Moscow has announced that depersonalized datasets collected by the city government can be obtained by companies working on training AI.** According to Eduard Lysenko, minister of the Government of Moscow and Head of the Information Technology Department, "Anonymous datasets are the basis for training artificial intelligence algorithms, so Moscow is ready to provide datasets on uniform conditions for all to develop AI solutions that can be applied for the benefit of the city. The launch of such a project is another way to help developers create new breakthrough projects in all areas of the urban economy." Examples of such datasets include information on urban sports and cultural events; data on apartment courtyards, container yards, roads, and other urban facilities; and information on the state of atmospheric air, water, and soil. To get access to the datasets, a company needs to fill out an application on a Moscow government webpage and pitch the need as one that will benefit the city and support urban development.

Sources: "Moscow is ready to share depersonalized data sets with companies developing AI systems – head of DIT" [Москва готова делиться обезличенными наборами данных с компаниями-разработчиками ИИ-систем — глава ДИТ], *D-Russia*, Apr. 13, 2022, https://d-russia.ru/moskva-gotova-delitsja-obezlichennymi-naborami-dannyh-s-kompanijami-razrabotchikami-ii-sistem-glava-dit.html; "A special project on artificial intelligence technologies was launched in Moscow" [В Москве запустили спецпроект о технологиях искусственного интеллекта], *Izvestiya*, Apr. 13, 2022, https://iz.ru/1319877/2022-04-13/v-moskve-zapustili-spetcproekt-o-tekhnologiiakh-iskusstvennogo-intellekta.

## CONSOLIDATION OF IT INDUSTRY REPRESENTATION AT THE MINISTERIAL LEVEL

**Key Russian IT companies have announced that they are coordinating and pooling their lobbying representation together for the purpose of engaging with the Ministry of Digital Development.** The companies—which include Yandex, Rosatom, Kaspersky Lab, Basalt SPO, Sberbank, and several others— stated that they will be naming representatives to work directly with the MDD and to coordinate with each other. In this way, they will represent the views of the IT industry to the government, as well as provide analytical support to the ministry with the purpose of helping accelerate the implementation of industry support measures. This integration of industry-government relations is part of a larger package of coordinating state support for domestic Russian industries in the face of sanctions pressures and continued import-substitution prioritization.

Source: "Advisers from Yandex, Sberbank, VK, ALT Linux will lobby the interests of the IT industry in the Ministry of Digital Development" [Советники из «Яндекса», Сбербанка, VK, ALT Linux будут лоббировать в Минцифры интересы ИТ-отрасли], *CNews*, Apr. 13, 2022, https://www.cnews.ru/news/top/2022-04-13_v_mintsifry_poyavyatsya_sovetniki.

## NEURAL NETWORKS USED IN HR DECISION-MAKING RESEARCH

**TalentTech, a Russian IT developer of 'HR Tech' solutions, has developed a new neural network that analyzes open comments in HR surveys using its proprietary 'TalentTech Polls' platform.** The program allows managers and HR professionals to create and conduct surveys online and get deep analytics of the results, including statistical and qualitative analysis of the text comments of the respondents. The use of AI neural networks in the analysis of open comments guarantees the processing of 100 percent of the answers, and increases the objectivity of the analysis of the research results, according to the company. In this way, this use of AI saves time in reading and analyzing open responses, generates detailed results analytics, and provides HR and executives with unbiased data in addition to HR research results.

According to the head of the TalentTech Polls team, Marina Buldovskaya:

> Each manager wants to understand in detail how engaged, loyal and satisfied employees are with the company. This is helped by engagement research, in which an important part of the analysis of the results is the open comments of employees, where they speak in detail on the topics that are most important to them. Previously, reading and subsequent analysis of such comments could take from seven (for small companies) to 281 business days (for companies with about 10,000 employees), which reduced the value of processing these comments to a minimum. Artificial intelligence processes and analyzes even a very large amount of data in a few minutes, and the resulting dashboards allow you to quickly get an idea of the attitude of your employees to the company and their work.

Source: "TalentTech trained artificial intelligence to analyze open comments in HR research" [TalentTech обучил искусственный интеллект анализировать открытые комментарии в HR-исследованиях], CNews, Apr. 8, 2022, https://www.cnews.ru/news/line/2022-04-08_talenttech_obuchil_iskusstvennyj.

## DRONE-BASED ALTERNATIVES TO SATELLITE SHIPPING ROUTE TRACKING DEVELOPED

**Russian scientists at the Moscow Institute of Physics and Technology are creating an unmanned aerial vehicle equipped with AI-integrated radar equipment that can take off directly from the deck of a ship and conduct ice reconnaissance.** It is being developed specifically for use on the Northern Sea Route (NSR) and will be the first drone in the world with such capabilities. Now foreign satellites are used to control the movement of ice on the NSR, which, due to the sanctions of Western countries, may well become inaccessible to Russian sailors. In this case, the complex will help ensure safe navigation even without the use of space technology. Today, foreign satellites remain the main source of information about the ice situation for the Russian merchant fleet through ice-bound routes.

The drone is supposed to be launched both from the shore and directly off of ships on the Northern Sea Route. The device will collect data on the ice situation with the help of special radars that form an image of the sea surface. Based on the information received, artificial intelligence will

predict the ice situation and automatically build the best route. The information will be transmitted to the captain of the ship or broadcast to the headquarters of marine operations on the NSR. There are no such civil unmanned carrier-based radar systems in the world yet.

According to *Izvestiya*, "The data it receives is now available free of charge. However, as practice shows, services under the jurisdiction of Western countries can be disabled at any time without any reason. In this case, the complex developed by the MIPT specialists will give ship captains and the NSR marine operations headquarters in general the opportunity to continue the operational management of navigation in this most important water area for Russia."

The system's radars will be installed on modern Russian devices that combine the capabilities of a quadrocopter and an unmanned aircraft. They have hybrid power plants, consisting of an internal combustion engine and an electric motor. Takeoff and landing can be carried out both in automatic mode and with manual control. If the flight takes place normally within the framework of the flight task, the remote pilot on board the vessel may not even interfere in the process.

Source: Denis Gritsenko, "Cold Counting: Drone Tracks Ice Movement on Shipping Routes" [Холодный подсчет: беспилотник отследит движение льдов на судоходных путях], *Izvestiya,* Apr. 3, 2022, https://iz.ru/1314088/denis-gritcenko/kholodnyi-podschet-bespilotnik-otsledit-dvizhenie-ldov-na-sudokhodnykh-putiakh.

## VACANCIES IN THE IT INDUSTRY HAVE FALLEN SINCE THE ONSET OF SANCTIONS

**Employment vacancies in the Russian IT industry have declined by one-quarter over the course of March even as there has been a 15 percent increase in the number of applications.** This is a function of the massive outflow of IT professionals which has been ongoing since the start of the Western sanctions regime. The recruiting agency HH.ru collects data on applications and vacancies and noted that competition is increasing for the smaller number of employment slots in the current IT industry as it braces for readjustment. According to industry representatives, many IT projects are 'on pause' due to the economic instability—especially with regard to hardware, which often requires importation from abroad. The reduction in vacancies is associated with the fact that many foreign IT companies, including Microsoft and Cisco, have paused or closed their Russia-based work for the time being.

Source: "In Russia, the number of IT vacancies has fallen sharply, and the number of resumes has grown" [В России резко упало число ИТ-вакансий, а количество резюме выросло], *CNews*, Apr. 4, 2022, https://www.cnews.ru/news/top/2022-04-04_v_rossii_rezko_upalo_chislo.

## ANTI-HACKER ROUTER DEVELOPED BY ROSTEC

**Rostec has announced an internet network router designed to provide advanced protection against hacking attempts.** The equipment is based on the BE-T1000 processor, an older model developed by Baikal Electronics in 2015, and is built for small business usage. The router is built to specifically withstand DoS and DDoS cyber attacks, using a "specially optimized traffic

algorithm" which uses AI technology. The router is not yet in production; it is still being resourced from previous agreements in Taiwan, which have broken down under sanctions.

Source: "The Russians created super-secure routers based on ancient Baikal processors" [Россияне создали суперзащищенные роутеры на древних процессорах «Байкал»], CNews, Apr. 7, 2022, https://www.cnews.ru/news/top/2022-04-07_rossiyane_razrabotali_superzashchishchennye.

## IT SPECIALISTS GIVEN DIRECTIONS ON HOW TO AVOID MILITARY SERVICE

**In an effort to retain highly qualified IT specialists and other digital knowledge and research workers, the Russian Ministry of Digital Development has published instructions on how to obtain a technical deferment from service in the Russian armed forces**. The instructions are short-notice, as Russia uses a partial conscription model for military service whose decision-making cycle starts in June. From April 19 to May 1, 2022, it will be possible to apply for a deferment from the army on the State Services portal. Employers themselves can do this by uploading a special form with the personal data of one or more IT specialists from the state to the Public Services resource. According to the new regulation, any male Russian citizen between the ages of 18 and 27 who works under an employment contract with a fixed work schedule is eligible. He must also have higher education in a specialty for which a deferment is provided. The employee must have worked in accredited IT companies for at least 11 months, from April 1, 2021, to April 1, 2022. This is alongside a variety of other measures to carve out exceptions for skilled IT workers and IT companies to remain in Russia, including a permissive tax and regulation regime.

Source: "Authorities have issued instructions for IT specialists on how not to join the army" [Власти выпустили инструкцию для ИТ-шников, как не ходить в армию], CNews, Apr. 14, 2022, https://www.cnews.ru/news/top/2022-04-14_vlasti_vypustili_instruktsiyu.

## NEW GRANT MONEY FOR AI DEVELOPMENT ANNOUNCED THROUGH 2024

**More than a thousand AI companies will receive grants for 17 billion rubles by 2024 through the federal 'Artificial Intelligence' project.** The funding will primarily go through six AI research centers established in 2021 at Skoltech, Innopolis University, ITMO, HSE, Moscow Institute of Physics and Technology, and the Institute for System Programming of the Russian Academy of Sciences, which all provide grants to private companies and startups, alongside government research efforts. Deputy Prime Minister Dmitry Chernyshenko's office announced the outlines of the granting scheme for 2022-2024 and noted that this would be in coordination with other major state-owned and private corporations which also support AI research and development, including Sberbank and others.

Source: "More than a thousand AI companies will receive grants for 17 billion rubles by 2024" [Более тысячи ИИ-компаний к 2024 году получат гранты на 17 млрд рублей], TASS, Apr. 6, 2022, https://tass.ru/ekonomika/14293169.

# HUMAN CAPITAL

## AI HACKATHONS AND EVENTS

**There were several developments in AI-related hackathons and training events during this reporting period, the most notable of which are mentioned below:**

- According to a Neuronet article, the Russian Technological University MIREA and Neurosemantics company held a hackathon for students from April 22-24. In the competition, teams developed algorithms for generating audio deepfakes. According to the hackathon organizers, "The choice of the hackathon theme is not accidental. Generative Artificial Intelligence is also seeing a steady rise in fraud and propaganda through generated audio, video, and text. To successfully counter such technologies, it is imperative to understand how such generative content is created."
- From April 23-24, the final of the RuCode 5.0 AI and algorithmic programming festival took place, hosted by different universities and IT parks around Russia. According to an article, several thousand IT specialists and students took part in the final stage of the festival. RuCode started in the spring of 2020 and is held twice a year.
- According to its website, a new "Digital Breakthrough" hackathon series will be held in Russia this year. This new program is the result of the merger of two existing programs: a competition series of the same name hosted by ANO "Russia – Country of Opportunity," and the Ministry of Economic Development's four-year program to hold 116 hackathons in Russia. (Both have been discussed in previous issues of the newsletter.) For this year, 36 hackathons are planned: 25 regional competitions, 8 district hackathons, and 3 all-Russian championships. The hackathons will begin in May and continue through November. The program also includes a series of educational lectures. The organizers expect more than 30,000 IT professionals to participate in the hackathons, though students over the age of 14 are invited to participate as well.

Source: "On April 22-24, MIREA, with the support of Nanosemantika, will host a hackathon 'Development of algorithms for generating voice fakes'" [22-24 апреля в МИРЭА при поддержке компании «Наносемантика» пройдет хакатон «Разработка алгоритмов генерации голосовых фейков»], Neuronet, Apr. 12, 2022, http://rusneuro.net/novosti/22-24-aprelya-v-mirea-pri-podderzhke-kompanii-nanosemantika-proydet-khakaton-razrabotka-algoritmov-g/; "Leading Russian universities will hold a championship in algorithmic programming" [Ведущие вузы России проведут чемпионат по алгоритмическому программированию], Regnum, Apr. 18, 2022, https://regnum.ru/news/society/3567647.html; "Digital Breakthrough" [цифровой прорыв], Hacks-ai.ru, accessed Apr. 23, 2022, https://hacks-ai.ru/; "'Russia - a country of opportunities' launched a project for AI specialists" ["Россия - страна возможностей" запустила проект для специалистов в области ИИ], RAPSI, Apr. 14, 2022, http://rapsinews.ru/incident_news/20220414/307888112.html.

## TRAINING TOOLS FOR CHILDREN

**According to an April 16 article, SberEducation has released a book to help teach children ages 6-10 about AI.** The book, *Artificial Intelligence – 5 Big Ideas,* which is about 200 pages long, teaches children how artificial intelligence and machine learning work and how AI technologies can be used for the public good. It also expands the reader's vocabulary on the topic, and teaches children how to master the skill of critical thinking. The book includes puzzles and exercises.

According to an April 6 article, non-state development institute Innopraktia and MIPT's Phystech-Schools Development Fund are jointly starting a new robotics education program for school children around Russia. Students will learn the basics of computer vision and AI, learn how to build and program their own robots, and control robots in team-based robotic football matches.

According to an April 14 CNews article, Robbo, a St. Petersburg-based robotics education company, has now equipped almost 500 schools in Russia and Belarus with robotics kits. These kits contain equipment, software, and education materials so that classrooms can instruct students on technology and robotics in a hands-on manner. Robbo is part of the Agency for Strategic Initiatives (ASI), a resident of the Skolkovo Foundation and JSC Technopark of St. Petersburg, and a member of the Circle Movement of the National Technology Initiative.

Sources: "SberEducation has released a book for children "Artificial Intelligence. 5 big ideas"" [СберОбразование выпустило книгу для детей «Искусственный интеллект. 5 больших идей»], I38, Apr. 16, 2022, https://i38.ru/obrazovanie-obichnie/sberobrazovanie-vipustilo-knigu-dlya-detey-iskusstvenniy-intellekt-5-bolshich-idey; "Robofootball for everyone!" [Робофутбол для всех!], Physec-School, accessed Apr. 24, 2022, https://go2phystech.ru/robofutbol-dlya-vseh/; ""ROBBO Classes" delivered to 170 schools in a year" [«РОББО Классы» поставили в 170 школ за год], CNews, Apr. 14, 2022, https://www.cnews.ru/news/line/2022-04-11_robbo_klassy_postavili.

## BRAIN DRAIN AND AI/IT SHORTAGES

**According to an April 11 *Kommersant* article, while most areas of IT are facing personnel shortages in Russia, the specialization facing the most acute shortages is AI development.** The article says that while three people apply for every IT job in Russia, no more than two apply for every AI job. According to the article, the problem has been worsening every year. The article notes that these trends are further exacerbated by the recent sanctions against Russia.

According to RIA Novosti, Deputy Prime Minister Dmitry Chernyshenko, while at a meeting on April 8, denied that Russia is facing a mass exodus of science personnel and assured participants that the situation is being properly assessed. This comes as an estimated minimum of 70,000 IT personnel left Russia in February and March alone. The Russian government subsequently introduced a number of incentives to retain IT personnel, which are detailed in previous issues of the newsletter. These include deferment of military service, as well as the relaxation of requirements surrounding mandatory publication in scientific journals.

Source: "Neural networks require brains" [Нейросетям требуются мозги], *Kommersant,* Apr. 11, 2022, https://www.kommersant.ru/doc/5304295; "Chernyshenko denied information about the massive outflow of scientific personnel from Russia" [Чернышенко опроверг информацию о массовом оттоке научных кадров из России], RIA Novosti, Apr. 8, 2022, https://ria.ru/20220408/nauka-1782583365.html; "The

authorities issued instructions for IT specialists on how not to join the army" [Власти выпустили инструкцию для ИТ-шников, как не ходить в армию], CNews, Apr. 14, 2022, https://www.cnews.ru/news/top/2022-04-14_vlasti_vypustili_instruktsiyu.

### MSU MEDICAL RESEARCH

**According to an April 7 *Krasnaya Vesna* article, scientists from Moscow State University have created a new algorithm that helps recommend the optimal treatment for patients with COVID-19 and cancer.** The research analyzed survival rate data from COVID-19 and cancer treatments, including various prescription medicine regimens, and can also predict the chance of death and length of hospitalization time.

Source: "Moscow State University scientists develop AI models for selecting treatments for COVID-19 and cancer" [Ученые МГУ разработали ИИ-модели подборки лечения при COVID-19 и раке], *Krasnaya Vesna*, Apr. 7, 2022, https://rossaprimavera.ru/news/5d342896.

### RANEPA CENTER FOR DIGITAL SOLUTIONS AND AI

**According to an April 6 TASS article, RANEPA (the Russian Presidential Academy of National Economy and Public Administration) recently opened a Center for Digital Solutions and Artificial Intelligence.** The new division will mainly be focused on research and development of open platform solutions, as well as data mining. According to the article, partners include the National Center for Cognitive Research at ITMO University, the Russian analytical platform for data analysis PolyAnalyst, the Voskhod Research Institute, and 1C Company.

Source: "The Presidential Academy will be engaged in developments in the field of artificial intelligence" [Президентская академия займется разработками в сфере искусственного интеллекта], TASS, Apr. 6, 2022, https://tass.ru/novosti-partnerov/14295543.

# INTERNATIONAL COLLABORATION

### PUTIN ARGUES THAT RUSSIA CAN NEVER BE ISOLATED

**Speaking at a meeting with Russian space industry personnel at the Vostochny Spaceport, President Vladimir Putin argued that Russia is not going to seal itself off from the rest of the world and is ready to cooperate with all its partners who wish to do so.** He stated, "We are not going to seal ourselves off. In today's world, it is completely impossible to fully isolate anyone, and totally impossible [to isolate] such an enormous country like Russia."

He also argued that even with Western efforts to isolate Russia in economic terms, the country can succeed, much as it did during the Cold War. He noted that in 1961, from a technological point of view, the USSR was in complete technological isolation, and stated:

> Despite it all, the Soviet Union was the first to launch an artificial Earth satellite, the first cosmonaut was ours, the first flight of a space station to reach the Moon was

> also ours, the first spacewalk was ours, the first female cosmonaut. We did everything under conditions of complete technological isolation, and [we] achieved such colossal success. Can you really assume that today's Russia with advanced technologies won't be able to cultivate our space program further [until 2030]?

Putin ended by noting that despite restrictions already in place since 2014, many high-tech spheres of the country's economy have advanced by leaps and bounds.

Source: "Putin assures Russia can never be isolated, nor will it ever shrink into isolation," TASS, Apr. 12, 2022, https://tass.com/politics/1436375.

## CHINA REDUCES COOPERATION WITH RUSSIA IN IT FIELD DUE TO SANCTIONS

**Although China has largely stayed on the sidelines of the Western effort to isolate Russia, it is taking several actions to reduce cooperation with Russia in the technology sphere.** This activity is the result of fears of falling afoul of Western secondary sanctions. For example, according to Alexander Sergeev, the President of the Russian Academy of Sciences, who was speaking at the "Digital International Relations - 2022" Conference held recently at Russia's MGIMO University, Chinese partners of the Russian Academy of Sciences have put cooperation with the academy on hold, freezing the development of previously discussed projects. He further noted that Russia does not want to break off any business relations and it will be necessary to return to normal cooperation with Chinese colleagues. Sergeev urged Russian listeners not to succumb to provocations and "still try to save what exists, where it can be saved."

Sergeev noted that this is part of a pattern of freezing academic cooperation by many countries around the world, although the academy is maintaining contact with foreign scientists who wish to cooperate. But in terms of cooperation with agencies and academies of sciences of other countries, the situation is very difficult and unprecedented. "Our colleagues, heads of scientific academies of other countries, simply refuse to contact," Sergeev noted. "Moreover, after exchanging various proposals, holding meetings on the internet, and different discussions, they simply postpone or scuttle these events, saying that the Academy of Sciences is also an organization that is in the political field, that "it is very difficult for us to do this, we are not allowed to do it." As a result, he said, the Russian Academy of Sciences has now frozen relations with most of the academies of sciences with which we had excellent cooperation before, including those of Germany, France, and the United States.

The acting director of the Institute of the Far East of the Russian Academy of Sciences, Kirill Babaev, argued that the United States is trying to force Beijing to make a choice between partnership with Moscow and the development of trade relations with Washington, but to sacrifice relations with Russia, which is China's main major ally in the international arena, in China is unlikely to please the West. Babaev stated, "Chinese scientific authorities have not yet formed their clear position on further cooperation with Russia in major joint projects. It is clear to both sides that this cooperation will continue, but the Chinese need time to navigate the sanctions risks and work out

their reaction to ongoing events. Perhaps that is why there was a pause in the work on large projects." Speaking about the cooperation of experts from both countries, he stressed that the joint work does not stop and is going well. For example, at the moment a large joint report of the Russian International Affairs Council is being prepared, in which scientists from Fudan University (Shanghai) are participating.

Developments in the commercial sphere parallel those in the academic sphere. China's largest telecoms equipment maker Huawei, itself burdened by US sanctions, is furloughing Russian employees for a month and suspending new contracts with Russian operators. The company has also cut jobs at the marketing department. The move comes as foreign companies still operating in the country scramble to avoid secondary sanctions from the US and Europe following Russia's invasion of Ukraine on February 24. The US Treasury Department issued a number of new sanctions earlier this month in a move seen as a warning to Chinese firms. Some reports suggest that Huawei may reassess its product portfolio in Russia and continue to sell only equipment made without US technology. A number of Chinese firms have been caught in the crossfire from sanctions imposed on Russia by Western countries in the wake of its incursion into its eastern neighbor. Under the US export sanctions, any technology goods made in foreign countries using American machinery, software or blueprints are banned from being exported to the country.

Huawei has not disclosed the scale of its operations in Russia, but it has some existing business ties established as recently as last year. The Chinese conglomerate struck a deal in 2021 with MTS, Russia's largest mobile operator, to launch commercial 5G services in the country. It has also worked with Rostelecom, a Russian communications operator now sanctioned by the US, on its digitization efforts, according to previous statements on the Chinese company's website. Huawei has been a core vendor of major Russian telecoms operators, such as MTS, Megafon and Veon, which have broadly deployed the Chinese tech giant's 3G and 4G equipment, among other communications technologies, according to Yang Guang, a senior analyst at tech consultancy Strategy Analytics. Yang said Huawei's reported moves in Russia do not mean that the company will exit the market.

Sources: "China pauses cooperation with Russian Academy of Sciences," TASS, Apr. 14, 2022, https://tass.com/science/1437893; "The Russian Academy of Sciences assesses prospects for cooperation between the Academy and China" [В РАН оценили перспективы сотрудничества академии с КНР], *Izvestiya,* Apr. 14, 2022, https://iz.ru/1320706/2022-04-14/v-ran-otcenili-perspektivy-sotrudnichestva-akademii-s-knr; Iris Deng, "Huawei suspends some Russian operations, reports say, treading carefully amid sanctions risks as it weighs options," *South China Morning Post,* Apr. 12, 2022, https://www.scmp.com/tech/big-tech/article/3173969/huawei-suspends-some-russian-operations-reports-say-treading.

## RUSSIAN GOVERNMENT ADVANCES DIGITAL SOVEREIGNTY AND IMPORT SUBSTITUTION PLANS

**The Russian government is working with private and semi-private companies to develop a plan to maintain Russia's technology industry in the face of broad international sanctions.**

The head of the Ministry of Digital Development, Maksut Shadayev, recently sent a letter to employees of Russian government agencies, including the plenipotentiaries of the President of Russia in the federal districts, heads of federal executive bodies, and senior officials of the regions, where he noted the need for active import substitution of digital solutions and products. He attached a list of recommended domestic solutions to replace foreign ones in daily activities.

In the letter, the Ministry of Digital Development reminds officials that the ministry has a Unified Register of Domestic Software, which currently includes more than 12,000 items. In addition, the Association of Software Developers, "Domestic Soft," maintains a list of domestic solutions included in the register that are comparable to foreign counterparts.

The Ministry of Digital Development suggests domestic replacements for foreign social networks and instant messengers, video conferencing programs, antivirus software, document editors, electronic mail services, online translation platforms, web browsers, web analytics, educational courses, mapping services, online job search platforms, e-commerce platforms, and accommodation booking services, as well as taxi and airfare booking services. It pays special attention to the inadmissibility of government agencies to use foreign solutions and programs for organizing video conferencing, including Zoom, Zello, Webex, Discord, Microsoft Teams, and Skype. As replacements for these, it offers Sferum, Mail.ru Calls, VK Video Calls, Yandex.Telebridge, Webinar.ru, solutions from TrueConf, IVA Technologies, etc.

It is recommended to replace Google Documents, Google Sheets, and Google Presentations with My Office, P7-office solutions, and Yandex 360 products. Gmail and Microsoft Outlook can be replaced by Mail.ru and My Office. As an analogue of foreign social networks and instant messengers (in particular, WhatsApp), the Ministry of Digital Development suggests using Vkontakte, Odnoklassniki, Yappy, Telegram, TamTam, YaRus, TenChat, My World, ICQ, and Fresbee. Instead of antivirus software that has left the Russian market, it is proposed to use Kaspersky and DR.Web. Google Chrome can be replaced with "Yandex.browser," and Google Maps with "Yandex.maps." Instead of eBay and Amazon, it is proposed to use Wildberries, Ozon, Yandex.Market, etc. Airnb and Booking.com will be replaced with Cyan, Ostrovok, Tutu.ru, etc. Yandex.taxi and similar software can substitute for Uber and Gett.

It should be noted that the summary table of the Ministry of Digital Development, sent to government agencies, does not contain many classes of system and specialized software—in particular, operating systems and database management systems. Domestic developers argue that Russian systems have improved significantly and are up to the task of replacing foreign analogues.

The Russian government is counting on using the ERA military innovation technopolis to create a base for promoting import substitution programs. As reported on the website of the Cabinet of Ministers, this was announced by Deputy Prime Minister of the Russian Federation Yuri Borisov at a meeting of the technopolis council.

According to Borisov, "Despite the progress in legislative support for the functioning of the technopolis, there is still a lot of work to be done to introduce tax and other benefits. The

government is doing everything possible to quickly overcome the consequences of sanctions against the domestic industry. We look forward to creating a good basis for promoting import substitution programs."

Skolkovo has also done its part by creating a consulting service to ensure the continuity of IT processes and import substitution. Additionally, the platform will feature a catalog of Russian products with foreign counterparts to replace them. According to Skolkovo, among the opportunities is assistance in the implementation of more complex projects that allow us to combine the tasks of import substitution with the digital transformation of the company.

The Reload.sk.ru platform allows users to directly use the knowledge of experts in the field of methods, approaches, products, technologies, and experience in transferring the IT landscape of companies to domestic solutions. Since many domestic companies now face the task of accelerated import substitution of information technology products without the requisite knowledge, the Reload.sk.ru platform has become a comprehensive solution for optimizing the processes of migration to domestic software and equipment and related digitalization. The platform brings together more than 50 experts in the field of import substitution. The methodology allows users to get acquainted with the experience of experts, select them according to the required competencies, and immediately fill out an application for involvement. The cycle, from setting the task and selecting an expert to contracting, will take one or two days.

Government grants are expected to speed up the implementation of import substitution projects. The Skolkovo Foundation is the operator of support measures and is ready to allocate funds for the implementation of projects that will produce domestic solutions built on digital technologies, with a planned grant of up to 300 million rubles and co-financing up to 80 percent of the project budget.

Sources: "The Ministry of Digital Development tells officials how to replace Chrome, Zoom, WhatsApp and Gmail" [Минцифры рассказало чиновникам, чем им заменить Chrome, Zoom, WhatsApp и Gmail], CNews, Apr. 7, 2022, https://www.cnews.ru/news/top/2022-04-07_mintsifry_rasskazalo_chinovnikam; "The Ministry of Digital Development compiled a list of recommended Russian solutions to replace foreign software and IT services" [Минцифры составило перечень рекомендованных российских решений для замены иностранного ПО и IT-сервисов], D-Russia, Apr. 6, 2022, https://d-russia.ru/mincifry-sostavilo-perechen-rekomendovannyh-rossijskih-reshenij-dlja-zameny-inostrannogo-po-i-it-servisov.html; "The government counts on the participation of the Era technopolis in import substitution programs," [Правительство рассчитывает на участие технополиса "Эра" в программах импортозамещения], TASS, Apr. 8, 2022, https://tass.ru/ekonomika/14322387; "Skolkovo Foundation launches digital sovereignty support center" [Фонд «Сколково» запустил центр поддержки цифрового суверенитета], CNews, Apr. 7, 2022, https://www.cnews.ru/news/line/2022-04-07_fond_skolkovo_zapustil.

## US UNEXPECTEDLY EASES SOME SANCTIONS IN THE TECHNOLOGY SPHERE

**The United States has unexpectedly eased some anti-Russia sanctions, allowing Russia to import software, hardware, services, and technologies if they are related to**

**telecommunications or internet communications.** According to a decision made by the US Treasury, restrictions were lifted on the supply of telecommunications equipment to the country, as well as hardware for working and using the internet. This change affects instant messaging, documents, and media content. Such concessions also apply to everything related to videoconferencing, chatting, and e-mail communication, as well as through social networks, web surfing, web hosting, and blogging. Separately, it was noted that sanctions no longer apply to domain name registration services.

Source: "The sanctions have cracked. The United States suddenly allowed the supply of hardware for the Internet and telecom to Russia" [Санкции дали трещину. США внезапно разрешили поставки в Россию «железа» для интернета и телекома], CNews, Apr. 8, 2022, https://www.cnews.ru/news/top/2022-04-08_ssha_neozhidanno_razreshili.

## CONFERENCE ON EMPLOYMENT TRENDS IN IT PROFESSION FOCUSES ON RETENTION

**At a recent conference, Russian and international practitioners in HR and TeamLead functions shared their experience and expertise on how to attract, retain, and develop IT professionals, as well as build and manage effective IT teams.** The conference presented an analytical review of the IT vacancies market and discussed current trends in the IT industry. It focused on how to deal with the current shortage of IT specialists, where to find the best personnel, and what methods exist to fill vacancies. In addition, it considered methods of motivation, training, and development of IT specialists. Colleagues shared case studies on how to build effective communication and climate in IT teams while working in the office and remotely.

Speakers included Victoria Piskareva, Head of HR Analytics and Automation, Kaspersky Lab; Elena Artemyeva, Director of Analytics, Research and Data Science, Rabota.ru; Anastasia Nashchekina, HR Director, TKB Banking Group; Victoria Talanova, HR BP, RSHB-INTECH (Rosselkhozbank); Ilya Zayants, IT Director, Shcherbinsky Elevator Plant; Nadezhda Nedorezova, Trainer, Coach, IT Staff Development Consultant, Your FORMULA; Evgeny Pochuikin, Business Applications Development Director of SOGAZ JSC; Madina Rodionova, Director of the Innovation Recruitment Center, Sberbank; Anait Govorina, Human Resources Director, JSC LC Europlan; Natalya Koroleva, HR Director, Sibedge; Vlad Shargin, Head of Recruitment and Adaptation, Algorithmika; Vladimir Rudenko, IT Director, Utair; Alena Reznik, Head of Internal Communications Department, I-Teco Innovation Center; Nina Putintseva, Head of Client Success Team, Agro.Club, ex-ORACLE; and Lilia Shtifanova, HR Director, MIPT Engineering Center.

Source: "HR & Teamlead conference Battle for IT" [HR & Teamlead конференция "Битва за IT"], Interfax, Apr. 6, 2022, https://www.interfax.ru/events/3323.

This report, the thirty-seventh in a series of biweekly updates, is part of an effort by CNA to provide timely, accurate, and relevant information and analysis of the field of civilian and military artificial intelligence (AI) in Russia and, in particular, how Russia is applying AI to its military capabilities. It relies on Russian-language open-source material.

Approved by May 2022: Michael Kofman, Research Program Director
Russia Studies Program / Strategy, Policy, Plans, and Programs

This work was performed under Federal Government Contract No. N00014-16-D-5003.



DNL-2022-U-032493-Final

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