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Abstract

This report, the thirteenth 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.

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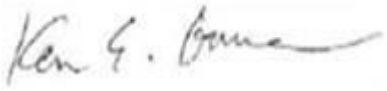
Approved by: **October 2020**



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Governance and Legal Developments

1. Tax relief proposed for AI professionals

According to reporting in newspapers *Vedomosti* and *Kommersant* on October 15-16, there are ongoing discussions between the Russian government and Russia's information and communication technology (ICT) industry on support for the ICT sector in an environment of economic downturn in Russia, including as a result of the COVID pandemic. An AI industry group advising the implementation of the "Digital Economy" national effort reportedly proposed that, among other measures, the Russian government include tax relief for professionals working on "AI implementation." They argued that the move could stimulate professional interest in the AI sphere and allow companies to raise salaries for AI professionals. This, in turn, could potentially help make Russian companies more competitive with their foreign counterparts and tackle persistent concerns about brain drain. Implementation of this proposal would require changes to the tax code, which are likely to be complex.

Separately, industry representatives called on the Russian government to expand tax relief for the ICT sector as a whole. As reported in issue 7 of *AI in Russia,* the Russian government announced the implementation of reduced tax and insurance rates for software developers and equipment manufacturers.

Source: Ekaterina Kinyakina and Timur Borduyg, "AI made up new privileges" [Искусственный интеллект придумал новые льготы], *Vedomosti*, Oct. 15, 2020, https://www.vedomosti.ru/technology/articles/2020/10/15/843486-iskusstvennii-intellekt; "Representatives of the IT industry proposed income tax relief for AI specialists" [Представители IT-отрасли предложили возвращать НДФЛ специалистам по искусственному интеллекту], *Kommersant*, Oct. 16, 2020, https://www.kommersant.ru/doc/4531826.

2. Russian government names potential World Class Scientific Centers in AI

In August, the Russian Council of State Support for the Creation and Development of World Class Scientific Centers met to sum up the selection results for centers receiving research and development grants. World Class Scientific Centers, or NTSMUs, carry out research and development work in priority areas of scientific-technological development. The committee received 60 applications for the grants, from which it selected 10 centers in six priority areas.

The criteria for selection were broad, and included the center's experience conducting research in the priority area, its scientific infrastructure, its planned contributions to the implementation of the Russian developmental priority areas, and the number of scientific publications of its researchers.

The creation of the NTSMUs is part of the implementation of the national project called "Science." The summary for the federal project titled "Development of scientific and scientific-industrial cooperation" provides for the selection of at least nine NTSMUs carrying out research and development in priority areas for scientific and technological development. For 2020 through 2024, the government allocated 15.46 billion rubles of funding.

Below is the list of NTSMUs in three priority areas: advanced digital technologies and AI, robotic systems, and new-generation materials.

NTSMU	Organizations Participating in the Establishment of the Center
"Center for Photonics"	• Institute of Applied Physics of the Russian Academy of Science (RAS) • Nizhny Novgorod State University named for N.I. Lobachevsky • Institute of General Physics of the RAS named for A.M. Prokhorov
"Advanced Digital Technologies"	• Peter the Great St. Petersburg Polytechnic University • St. Petersburg State Marine Technical University • Tyumen State University • Scientific Research Institute of Influenza of the Russian Ministry of Health named for A.A. Smorodintsev

Source: "The government approved a list of institutions for building world-class centers in AI and telecom systems" [Правительство утвердило перечень институтов для построения центров мирового уровня в сферах ИИ и телеком-систем], D-Russia.ru, Aug. 31, 2020, https://d-russia.ru/pravitelstvo-utverdilo-perechen-institutov-dlja-postroenija-centrov-mirovogo-urovnja-v-sferah-ii-i-telekom-sistem.html.

Military and Security Developments

3. Okhotnik UCAV will utilize AI

Russian Aerospace Forces will receive a "swarm" of unmanned aerial vehicles over the next two years. Three more heavy S-70 "Okhotnik" unmanned combat aerial vehicles (UCAVs) will be built, and will join the ongoing test program. These will modify the three additional S-70s to reduce their radar signature. Initially, the Ministry of Defense (MOD) planned to complete development by the end of 2025, with additional combat tests to take place in 2023-2024. However, in early August 2020, after a meeting with Vladimir Putin, the head of the United Aircraft Corporation said that President Putin had asked him to speed up the development process in order to start delivering the UCAV in 2024.

The MOD's plan for Okhotnik includes a long-range air-to-air weapons complement, as well as heavy bombs and cruise missiles for striking ground targets. This stealthy, blended-wing 20-tonne drone was originally created for high-intensity conflicts, such as breaking through adversary air defense and hitting strategic targets. Its future capabilities include operating under human control in a manned-unmanned teaming (MUM-T) arrangement with an S-57 aircraft, as well as operating completely autonomously.

The Russian military continues to discuss and conceptualize the proper mix of AI-enabled autonomy and human decision-makers in future weapons systems. While the Russian defense community sees a growing role for AI-enabled autonomy in weapons systems, to include fully autonomous weapons, it is largely aspirational given the current levels of domestic high-tech developments, and the preponderance of human-controlled autonomous and unmanned systems in military service. Given the earlier discussion on the increasing autonomy in weapon systems, as described in issue 8 of *AI in Russia,* it is likely that, despite Okhtonik's planned autonomous operations, a human will still make final decisions involving lethal force.

Source: "The "Hunters" are coming: the military will receive heavy unmanned fighters" [Нашлись «Охотники»: военные получат тяжелые беспилотные истребители], Iz.ru, Oct. 8, 2020, https://iz.ru/1070737/anton-lavrov-aleksei-ramm/nashlis-okhotniki-voennye-poluchat-tiazhelye-bespilotnye-istrebiteli; Lieutenant General O.V. Maslennikov, Colonel (reserve) F.K. Aliev, Colonel A.V. Vassenkov, and Colonel O.M. Tlyashev, "Intellectualization is an important component of digitalization of the Armed Forces of the Russian Federation" [Интеллектуализация — важная составляющая цифровизации Вооруженных Сил Российской Федерации], *Voennaya Mysl*, June 2020, pp. 67-77.

4. Advanced Research Foundation plans AI helicopter

Russia's Advanced Research Foundation (ARF) and Russian Helicopters (part of Rostec) have finalized a preliminary project for a future helicopter equipped with a hybrid power plant and an artificial intelligence solutions-based combined control system. The engineering concept addresses the requirements for helicopter technologies that will emerge in 10 to 20 years, as well as competitiveness with foreign competitors. The Russian concept addresses speed, range, flight duration, reliability, and universality.

It is expected that such features and parameters will make the helicopter more effective for medical evacuation, and search and rescue operations. The designers envision that this helicopter will be able to stay in the air for seven hours nonstop and fly 50 kilometers (31 miles) in just seven minutes with two injured personnel (or one medical module) and two medics on board.

As discussed in issue 11 of *AI in Russia,* the ARF is one of the MOD's leading R&D institutions and is conducting work on multiple projects involving AI in military technologies, such as combat robotics. The MOD is discussing incorporating AI in future manned and unmanned systems in order to gain better situational awareness and C4ISR capability.

Source: "Russia works on hybrid power plant helicopter with artificial intelligence," Tass.com, Sept. 30, 2020, https://tass.com/defense/1206787.

5. Ministry of Emergency Situations prioritizes robotics and unmanned systems

On October 12, 2020, the Russian Ministry of Emergency Situations announced the creation of a working group for the development of robotics and unmanned aerial systems. The group's main goal will be to develop capacity and improve the efficiency of emergency response by using robotic systems. The group is headed by First Deputy Minister Alexander Chupriyan, and consists of robotics and unmanned aviation specialists from the Ministry of Emergency Situations, the MOD, the ARF, the RTK Central Research Institute, the Skolkovo Foundation, and Sberbank, as well as the nation's leading scientific and educational organizations. Today, the development of robotics is one of the Ministry of Emergency Situations' priorities. The ministry noted that in October 2020 it actively used unmanned systems for mine clearance operations and inspection of underwater objects.

Key members of this working group,—the ARF, Skolkovo, and Sberbank—are already engaged in AI and robotics research, and lead the way in AI development, as noted in earlier newsletters.

The Russian MOD is likewise driving key AI RDT&E, and it is likely that the technology and lessons learned by these actors will be shared with the Ministry of Emergency Situations.

Source: "Russia's Emergencies Ministry is seeking robotics and unmanned systems" [В МЧС России создана рабочая группа по развитию робототехники и беспилотных авиационных систем] Ru-bezh.ru, Oct. 12, 2020, https://ru-bezh.ru/gossektor/news/20/10/12/v-mchs-rossii-sozdana-rabochaya-gruppa-po-razvitiyu-robototexnik.

6. Avtomatika signed a four-way agreement on the development of breakthrough digital technologies

A four-sided scientific and technical agreement was signed between the Masshtab Scientific Research Institute (part of the Avtomatika company in the Rostec state corporation), and the Ramek-VS, Alliance, and Omega enterprises. The agreement is aimed at the development of breakthrough digital technologies for major projects such as the "Safe City." The companies agreed to cooperate on the development of software and hardware systems, and on the joint development of neural networks, machine vision, and intelligent sensor systems.

Avtomatika specializes in information security, ICT, and special-purpose automated control systems. As discussed in issue 9 of *AI in Russia,* the company is already engaged in the development of a hardware and software system called "Pelena" ["Shroud"] to increase monitoring, control, and surveillance capabilities in Russian cities through integration into the so-called "Internet of Things" (IoT). Before the onset of the COVID-19 pandemic, the Russian government was investing in urban population monitoring with the help of AI, and it has stepped up its efforts during this ongoing crisis. Rostec is at the forefront of this trend via its numerous subsidiaries such as Avtomatika. As discussed in issue 7 of *AI in Russia,* Avtomatika is also developing AI-enabled dual-use C-UAS systems.

Source: "'Avtomatika' signed a four-way agreement on the development of breakthrough digital technologies" [Концерн «Автоматика» подписал четырехстороннее соглашение о развитии сквозных цифровых технологий] CNews.ru, Oct. 2, 2020, https://www.cnews.ru/news/line/2020-10-02_kontsern_avtomatika_podpisal.

Corporate and Market Developments

7. Sberbank creates new digital assistant, launches joint data lab with Visa

On September 30, Sberbank and Visa announced the launch of a joint data laboratory, where anonymized credit card data will be studied in order to better predict trends in customer behavior. The laboratory, housed on Sberbank's campus, will utilize artificial intelligence and machine learning tools to create probabilistic hypotheses with the goal of "improving the convenience and quality of services for clients." The supercomputer "Christophari," which is ranked Russia's number one supercomputer, will be used in the project as well. Sberbank and Visa have collaborated in developing AI solutions before. For example, in June 2020, the companies teamed up with retailer Azbuka to create a cashier-less convenience store where shoppers are automatically charged for their purchases when exiting the building.

Separately, Sberbank created and patented Russia's first robot to assist with legal tasks. According to an October 12 article, Sberbank has developed an AI-based digital assistant that can automatically recognize "legally significant" data from documents to help determine a client's legal risk before the bank decides to offer a loan. With the help of the robot, more than 2.5 million legal opinions were prepared in just eight months.

Source: "Sberbank and Visa launch a data laboratory in Russia" [Сбербанк и Visa запускают в России лабораторию данных] CNews, Sept. 30, 2020, https://www.cnews.ru/news/line/2020-09-30_sberbank_i_visa_zapuskayut_v; "Russian store goes cashierless with Sberbank and Visa," FinExtra, June 9, 2020, https://www.finextra.com/newsarticle/35980/russian-store-goes-cashierless-with-sberbank-and-visa; "Sberbank has created an AI-based legal capacity verification system for legal entities" [Сбербанк создал систему проверки юрлиц на правоспособность на базе ИИ], CNews, Oct. 12, 2020, https://www.cnews.ru/news/line/2020-10-12_sberbank_sozdal_sistemu.

8. COVID continues to propel AI in medical sphere

According to reports, a new platform that enables the automatic testing of medical AI algorithms for image processing has been developed by experts at the Center of Diagnostics and Telemedicine (CDT), a state medical institute in Moscow. Posted publicly on the web portal GitHub for feedback and debugging, the platform provides a digital setting in which AI algorithms can be tested for their speed and reliability on existing medical imagery datasets.

Preliminary testing of medical algorithms for "analytical verification" ahead of their integration into working medical systems is currently done manually, and this advance allows for a more automated and thorough process that is also open to the public for rapid robustness and verification tests of the algorithms. CDT has been a center of AI-based solutions to medical problems, and its Scientific-Practical Clinic was recently reported to have developed a way to use analysis of CT scans of lungs to test for damage from COVID-19. The newly developed platform now loads this COVID-19 imagery data as the primary source for algorithm testing, although there are plans to expand operability to include all lung and chest pathologies, such as various cancers and tuberculosis, as well as multiple sclerosis. As discussed in past issues of *AI in Russia,* the COVID pandemic has propelled AI research and development in the medical and security spheres, among others.

Source: "Russian Developers Created a Platform for Self-Testing AI Medical Services" [Российские разработчики создали платформу для самопроверки медицинских сервисов искусственного интеллекта], CNews, Sept. 30 2020, https://www.cnews.ru/news/line/2020-09-30_rossijskie_razrabotchiki.

9. Business perspectives on government plans

A recent interview with Artem Gavrichenkov, the technical director of Russian ICT company Qrator Labs, provided an assessment of how the Russian private sector views government efforts regarding digitalization and AI development. The recent national plan to deal with post-coronavirus economic recovery has strongly emphasized a move towards digitalization and the further integration of ICT technology within both the Russian state bureaucracy and the broader economy. Gavrichenkov provided a skeptical overview of some elements of the new plan and the ways in which it seeks to elevate digitalization, AI, and other technologies.

Noting that the plan seeks to create a new register of innovative technology companies, Gavrichenkov suggests that this is a misapplication of government efforts, especially given the proliferation of such registers, including a recent one developed in Skolkovo. The Russian state should be focused on creating a strategic developmental plan as well as facilitating capital access and investment priorities. He also noted that it remains quite difficult for the state to reproduce a "Silicon Valley"-like hub for venture capital (VC), and that therefore recent plans to create such a state VC fund in the Far Eastern Federal District have quite uncertain outcomes. Gavrichenkov prefers the US model of individualized, private VC companies that are not beholden to taxpayer and state concerns, and thus are more adaptable to a changing tech development climate.

Gavrichenkov is similarly skeptical of new Russian plans for developing "technological valleys"—i.e., state-directed centers for innovative scientific and technological research—although he admits that such centers are certainly needed in order to build up regional hubs of

excellence in Russia. He argues that while the Skoltech (Skolkovo Institute of Science and Technology) has had some successes, after 10 years of dedicated investment and development it comes nowhere close as a model for a Silicon Valley peer competitor. He repeats that focusing on new regional centers while the first one still does not produce at required levels is backwards, and that the task for state-directed strategic development should be "to debug the processes, amend the legislation and achieve success at one point."

Speaking about the relatively high business risks associated with tech industry research and development, Gavrichenkov argues that, in fact, "the task of scientific and technological centers and venture funds is precisely to remove such risks from entrepreneurs." To that end, he argues that the current legal status of bankruptcy procedures is insufficient, and that legislative changes need to be made—and that the new plan has done nothing in this respect.

Finally, Gavrichenkov is more supportive of the national plan's notable focus on AI research. He notes that Moscow has been particularly advanced in leading public-private partnerships that get around current regulatory issues. He suggests that some AI research that is restricted in Western countries may in fact find greater ease in the Russian regulatory context, and that this may be a considerable source for innovation in the near future. At the same time, he cautions that there are still fundamental regulations, such as personal data privacy protections, that should not be tampered with in an effort to get rid of other "archaic" regulations.

Source: "Digitalize This: Will the National Plan Help Create its Own Silicon Valley in Russia?" [Цифровизируй это: поможет ли нацплан создать в России свою Кремниевую долину], Future Russia, Oct. 8, 2020, https://futurerussia.gov.ru/nacionalnye-proekty/cifroviziruj-eto-pomozet-li-nacplan-sozdat-v-rossii-svou-kremnievuu-dolinu.

Education and Training Developments

10. Federal program offers free AI training across Russia

According to an October 15 *Izvestiya* article, a new program within the "Human Resources for the Digital Economy" federal project has been launched, which allows Russians in 48 regions to take free training courses that result in a certificate. This effort is under the rubric of the "Digital Economy" national project that seeks to improve education and training.

After submitting an application, participants can enroll in up to 72 hours of coursework in any one of 22 competencies, including AI, cybersecurity and data protection, programming and creation of IT products, digital marketing, and 3D manufacturing. The remote training courses are offered by University 20.35, a university founded by the Agency for Strategic Initiatives (ASI), with partners including Skoltech, Innopolis, ITMO, SPbPU, MIPT, Novosibirsk State University, Tomsk State University, and Far Eastern Federal University. Adults who have not reached retirement age but have completed higher or vocational training are eligible to apply. A successful pilot version of the program was completed in 2019. The program is free for all participants and is paid for by the federal budget.

Source: "Residents of 48 regions of Russia will receive personal digital certificates" [Персональные цифровые сертификаты получат жители 48 регионов России], *Izvestiya,* Oct. 15, 2020, https://iz.ru/1074361/2020-10-15/personalnye-tcifrovye-sertifikaty-poluchat-zhiteli-48-regionov-rossii; "Residents of 48 regions of Russia will receive personal digital certificates" [Персональные цифровые сертификаты получат жители 48 регионов России], CNews, Oct. 15, 2020, https://cnews.ru/link/n516959, "WHAT IS UNIVERSITY 20.35," 2035, https://2035.university/en/.

11. Skoltech and UAE University to partner in AI research

According to a press release, Skoltech and the University of Sharjah (UoS), which is based in the United Arab Emirates, held a joint workshop on October 6 to discuss ways to further artificial intelligence collaboration between the two institutions. Researchers specifically discussed novel applications of AI and machine learning in the sectors of medicine, energy, and aerospace. Key takeaways from the workshop included the decision to organize a joint international AI conference, and to create a joint UoS-Skoltech AI laboratory. The next workshop is planned for spring 2021. According to the statement, Skoltech and UoS signed a

memorandum of understanding in November 2019, which detailed collaboration in fields including artificial intelligence, biotechnology, and quantum technologies.

Source: "Inaugural joint Skoltech-UoS workshop focuses on AI applications and new technologies," Skoltech, Oct. 10, 2020, https://www.skoltech.ru/en/2020/10/inaugural-joint-skoltech-uos-workshop-focuses-on-ai-applications-and-new-technologies/.

Spotlight: GosNIIAS

State Scientific Research Institute of Aviation Systems (Государственный научно-исследовательский институт авиационных систем), known by its acronym GosNIIAS, is a scientific center engaged in civil and military aviation systems research, airborne system algorithms and software development, and analysis of avionics and weapon systems efficiency. Its major R&D efforts include developing software for aerospace systems and building airborne digital computers for weapon control and delivery. GosNIIAS conducts work on military AI R&D, and has been actively involved in developing neural networks for the Marker UGV in connection with the Advanced Research Foundation, as discussed in issue 11 of *AI in Russia.*

GosNIIAS is part of the Zhukovsky Institute National Research Center and was created to develop new aviation technology and accelerate the implementation of scientific developments and achievements for the Russian domestic economy. The institute is a key platform for discussions on the current and future development of piloted and uncrewed systems, and is an active participant in military-organized events on that topic.

In December 2019, the Zhukovsky Institute announced the creation of the Center for Artificial Intelligence Technologies (CAIT). President Putin authorized the creation of CAIT by presidential decree to conduct work on the digital economy and artificial intelligence. The center will work on the development of computer vision, predictive data analysis, deep neural networks (GNS), and deep learning technologies, along with robotics and intelligent technologies for security and cybersecurity.

GosNIIAS will be one of two institutions where CAIT will be housed; the other is the Baranov Research Institute. One key CAIT project will be the introduction and maintenance of the "Platforma-GNS" domestic integrated neural network development environment. "Platforma-GNS" will provide a complete development cycle for artificial intelligence systems from data creation, training, and formation of the GNS architecture, to automated testing and porting, to the implementation of GNS into existing and promising domestic computers. The establishment of CAIT was planned for official completion by February 2020.

The Russian defense-industrial sector has been under scrutiny by the government for failing to develop an adequate share of products and services for the country's civilian market, in order to lessen the dependence on government and military budgets. The civilian high-tech sector is perceived to be developing more rapidly and in a more diverse fashion than the military high-tech sector; this perception is reinforced by recent MOD calls for more civilian-military cooperation on AI RDT&E, as discussed in issue 10 of *AI in Russia*. The MOD is therefore hoping that the development of dual-use products will strengthen the military and defense

enterprises and make them more competitive in the domestic and international high-tech markets.

Source: GosNIIAS website, https://www.gosniias.ru/news.html, accessed Oct. 16, 2020; "Andrey Dutov: The center of AI technologies will be created in the Zhukovsky Institute" [Андрей Дутов: В НИЦ Институт имени Н.Е. Жуковского создадут центр технологий ИИ], aviaport.ru, Dec. 9, 2019, https://www.aviaport.ru/digest/2019/12/09/618139.html.

In Brief: Russia's Top 10 Predictive Analytics Companies

Moscow Institute of Physics and Technology (MIPT) has developed a list of Russia's top 10 companies in the fields of predictive analytics, recommendation systems, and decision support systems. Many of these companies have been covered in past issues of *AI in Russia*.

Because of relative data scarcity and challenges in cross-comparisons, MIPT used expert ratings to profile key companies in four categories:

- "Ecosystem leaders" are companies that have developed their PA systems and integrated them into their businesses. This group does not typically sell anything except services (usually cloud services). These companies have access to large datasets and are able to analyze them.
- "Users" are in essence predictors for themselves, or companies that do not sell their technologies externally and use them to become more successful. They are generally companies that have grown significantly over the past 10-15 years.
- "Developers" are smaller startup companies that try to sell their products but are usually limited to a niche market.
- "Integrators" are companies whose clients are large and medium-sized organizations that do not always have their own technologies but are able to find developers.

We selected the top 10, listed below, in order to provide examples from each of these four categories.

1. Яндекс (Yandex)

- Russia's leading search engine.
- Ecosystem leader
- Project example: numerous recommendation and analytical systems for users
- Revenue: $2.224B
- Capitalization: $21.5B
- R&D expenditures: $370M
- 9 patents
- 55 publications
- https://yandex.com/

2. Mail.Ru Group

- One of Russia's largest internet, email, and IT-companies.
- Ecosystem leader
- Project example: personalized services, including for video recording
- Revenue: 87.1B rubles
- Capital: $5.86B
- 9 patents
- 55 publications
- https://mail.ru/

3. Лаборатория Касперского (Kaspersky Lab)

- International companies offering virus protection services.
- User
- Project example: Astraea tool that gathers and analyzes virus data for users
- Revenue: $684.6M
- No data available on capital or R&D expenditures
- 0 patents; 0 publications
- https://usa.kaspersky.com/

4. Сбербанк (Sberbank)

- Russia's largest bank, focused on building an ecosystem in developing AI solutions.
- User
- Project example: numerous AI projects, as discussed in past issues of *AI in Russia*
- Revenue: $11.2B
- Capital: $62.7B
- No data available on R&D expenditures
- 3 publications in 2019
- 0 patents
- https://www.sberbank.com/index

5. MTC (MTS)

- Russia's largest telecommunication operator and provider of digital services.
- User
- Project example: predictive selection of service plans for users
- Revenue: $6.3B
- Capital: $8.3B
- No data available on R&D expenditures
- 0 patents; 0 publications
- http://en.mts.ru/

6. X5 Retail Group

- One of Russia's largest grocery stores.
- User
- Project example: predictive pricing, inventory management, planning of promotions
- Revenue: $26.8B
- Capital: $9.67B
- No data available on R&D expenditures
- 0 patents; 0 publications
- https://www.x5.ru/en

7. Газпромнефть (Gazprom-Neft)

- Russia's largest oil and gas company.
- User
- Project example: Forecasting, monitoring, and analytics for drilling and equipment
- Capital: $23B
- Revenue: 2.5 trillion rubles
- No data available on R&D expenditures
- 0 patents; 0 publications
- https://www.gazprom-neft.com/

8. Цифра (Zyfra)

- Develops AI and IoT solutions.
- Developer
- Project example: tools to forecast machine tool longevity, others as discussed in past issues of *AI in Russia.*
- Revenue: $31.7M
- No data available on R&D expenditures
- 0 patents; 0 publications

9. Крок (Croc)

- One of Russia's ICT industry leaders, focused on developing new digital ecosystem of society; operational in 40 countries across the world.
- Integrator
- Project examples: facial recognition, transport flows forecasting
- Revenue: $409M
- No data available on capital or R&D expenditures
- 0 patents; 0 publications
- https://www.croc.ru/en/

10. Ланит (Lanit)

- One of Russia's ICT industry leaders, provides IT services and partners with more than 250 international companies.
- Integrator
- Project example: Lanit Omni, which offers personalized recommendations for consumers
- 173.8B rubles in consolidated turnover (Консолидированный оборот)
- No data available on capital or R&D expenditures
- 0 patents; 0 publications
- https://lanit.ru/en/

Source: "AI Almanac: Predictive Analytics and Decision Making Systems" [ИИ: Предсказательная аналитика и системы поддержки принятия решений, Аналитический сборник №5], Sept. 2020, http://www.AIreport.ru.

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SP3 provides strategic and political-military analysis informed by regional expertise to support operational and policy-level decision-makers across the Department of the Navy, the Office of the Secretary of Defense, the unified combatant commands, the intelligence community, and domestic agencies. The division leverages social science research methods, field research, regional expertise, primary language skills, Track 1.5 partnerships, and policy and operational experience to support senior decision-makers.

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