Development of Artificial Intelligence

Departments

- Department of Strategic Development and Innovations

Artificial intelligence is a trending field that encompasses all the developed nations of the world.

As such, more than 30 countries have formulated national strategies for the development of artificial intelligence (Canada, Singapore, China, Kenya, Denmark, France, etc.).

International experts estimate that investments in artificial intelligence technologies tripled from 2014 through 2017, amounting to approximately U.S. $40 billion.

In the absence of due attention to this industry from the state, Russia runs the risk of missing out on a potential technological breakthrough. The global market for technological solutions based on artificial intelligence will be divided among competing countries, which will hinder Russia's development in strategically vital sectors of the economy and slow its development.

In Russia, artificial intelligence is taken to mean a set of technological solutions that makes it possible to imitate human cognitive functions (including self-learning and finding solutions without a predetermined algorithm) and to obtain results that are at least comparable to those of human intellectual activity during the performance of specific tasks.

State-of-the-art artificial intelligence technologies are being implemented in the following areas

- computer vision;
- natural language processing;
- speech recognition and synthesis;
- intelligent decision support systems, and;
- promising AI techniques.

In order to facilitate the development of artificial intelligence in Russia, [Decree No. 490 of the President of the Russian Federation dated October 10, 2019](#), approved the ***National Strategy for the Development of Artificial Intelligence Up to the Year 2030 in the Russian Federation*** (hereinafter – the Strategy).[1]

The Strategy defines the objectives of the development of artificial intelligence in Russia, which include

1. Support for scientific research in order to ensure the advanced development of artificial intelligence;
2. The development and evolution of software that uses artificial intelligence technologies;
3. Increasing the availability and quality of the data needed for the development of artificial intelligence technologies;

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[1] Translator's note: For an English translation of the Russian national AI strategy, see: https://cset.georgetown.edu/wp-content/uploads/Decree-of-the-President-of-the-Russian-Federation-on-the-Development-of-Artificial-Intelligence-in-the-Russian-Federation-.pdf

4. Increasing the availability of hardware necessary to solve problems in the field of artificial intelligence;
5. Increasing the extent to which the Russian artificial intelligence technology market is provided with qualified personnel and the extent to which the public is informed about potential areas of application of these technologies, and;
6. The creation of an integrated system for regulating the social relations arising in line with the development and use of artificial intelligence technologies.

In pursuance of the Strategy, a draft of the federal Artificial Intelligence project was prepared, and its approval is slated for December of 2019. In accordance with the instructions of the Government of the Russian Federation, the Russian Ministry of Economic Development (MoED) has been designated as the authority responsible for project development.

The primary objectives of the federal project are defined as

1. The assurance of an increased demand for the products (services) created (provided) that use artificial intelligence;
2. The development and evolution of software in which artificial intelligence technologies are used;
3. Support for scientific research in order to ensure the advanced development of artificial intelligence;
4. Increasing the extent to which the Russian artificial intelligence technology market is provided with qualified personnel;
5. Increasing the availability and quality of the data needed for the development of artificial intelligence technologies;
6. Increasing the availability of the hardware needed in order to solve problems in the field of artificial intelligence;
7. The creation of an integrated system for regulating the social relations arising in connection with the development and use of artificial intelligence technologies, and;
8. The promotion and development of the community.

Major state-owned and private companies are also involved in the development of AI in Russia.

In this vein, an Agreement of Intent was signed between the Government of the Russian Federation and the *Sberbank* Public Joint-Stock Company (PJSC) that calls for the company to prepare and the Government of the Russian Federation to approve a "roadmap" for the development of the high-tech field of Artificial Intelligence.

Furthermore, an Agreement was separately signed between the Government of the Russian Federation and the Russian Direct Investment Fund Management Company Joint-Stock Company (RDIF MC JSC) that provides assistance in attracting investments in Russian companies in the field of artificial intelligence together with international partners.

These agreements constitute the basis for formulating a roadmap of the development of the high-tech field of Artificial Intelligence, which includes the results of the federal Artificial Intelligence project, as well as the measures of the Sberbank PJSC and the RDIF MC JSC surrounding the development of artificial intelligence. The Russian Ministry of Economic Development is the federal executive authority that will coordinate the implementation of the roadmap.

In addition, for the purpose of solving the problems associated with the development of the high-tech industry of Artificial Intelligence, business has formed an Artificial Intelligence Alliance that includes the principal market participants that are interested in developing the industry [the Sberbank PJSC, Yandex, the Mail.ru Group, Mobile TeleSystems (MTS), Gazprom Oil, and the Russian Direct Investment Fund (RDIF)].

In order to coordinate the activities of federal government authorities, as well as business and science organizations, Resolution No. 1500 of the Government of the Russian Federation, dated November 23, 2019, created a subcommittee for the development of artificial intelligence that is co-chaired by M. G. Reshetnikov, Minister for Economic Development of the Russian Federation, and G. O. Gref, President and Chairman of the Board of the Sberbank PJSC.

The primary objectives of the subcommittee are to consider proposals related to the development of artificial intelligence, coordinating the activities of the federal project Artificial Intelligence, assisting in the implementation of the roadmap for the development of the high-tech field of Artificial Intelligence, and implementing the agreements concluded between the Government of the Russian Federation and the Sberbank PJSC, as well as between the Government of the Russian Federation and the RDIF MC JSC.

Moreover, in order to study the best foreign experience in the development of AI, the Ministry is working to create a center for the fourth industrial revolution based on the Sberbank PJSC platform, the opening of which is scheduled for the year 2020.

The center will perform work in the following areas:

1. **Internet of Things**.

The center will provide expert support that makes it possible to create a stimulating environment for the development of Internet of Things technologies based on best practices, thereby exerting a positive influence on the development of the digital economy as a whole. Moreover, the development of the Internet of Things will stimulate solutions to problems by using data, and will give rise to new principles for data collection and processing, which will facilitate the transition to a new technological order.

2. **Robotics**.

The center will develop efficient approaches to regulatory control, including research, concept development, the preparation of regulatory documents, and pilot project implementation. During project selection and implementation, the interests of all beneficiaries of the introduction of robotics and artificial intelligence, as well as for foreign experience and the best practices of international laws, will be taken into account.

3. **Smart City**.

The center will formulate proposals for the harmonious use of artificial intelligence and the Internet of Things for the benefit of the public and private sectors during the collection and processing of big data within the framework of the "smart city" concept.

Objectives of the Russian Ministry of Economic Development in Terms of AI Development for the Year 2019

- The formulation and approval of a National Strategy for the Development of Artificial Intelligence Over the Period Extending Up to 2030 (completed).
- The creation of a subcommittee for the development of artificial intelligence of the Government Commission for Digital Development and the Use of Information Technologies to Improve Quality of Life and the Conditions for Doing Business (completed).
- The development and approval of the federal Artificial Intelligence project (in the process of being implemented).
- The formulation and approval of a roadmap for the development of a high-tech field of Artificial Intelligence (in the process of being implemented).

Objectives of the Russian Ministry of Economic Development in Terms of AI Development for the Year 2020

- The implementation of the measures of the federal Artificial Intelligence project.

- The implementation of the measures of the roadmap for the development of the high-tech field of Artificial Intelligence.
- The formulation and approval of an action plan for the implementation of the National Strategy for the Development of Artificial Intelligence Over the Period Extending Up to 2030.
- The creation of a center for the 4th industrial revolution.