

# History, Methodology and Hypothesis of Artificial Intelligence

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This article examines the history, methodology and essence of the hypothesis of the philosophy of artificial intelligence, which is the most important scientific and technical phenomenon of globalization. The author traces the artificial intelligence (AI) system from analogous examples of antiquity to its foundation in the 3rd decade of the last century, pays attention to the stages of the emergence and development of Turing's theory, and also analyzes and evaluates the philosophy of this area using scientific theory and theory. The conclusion drawn from the analysis in the article is based on the author's subjective conclusions that "artificial intelligence is a useful thing for man and civilization, but it cannot completely replace or destroy the labor consciousness". The author also draws attention to the differences in the attitude to artificial intelligence, assessing the real situation in this area and concludes that man, as the creator of all scientific and theoretical navigation, can control the field of artificial intelligence by his will. In other words, the development and progress of artificial intelligence began with man and will continue with man. Artificial machines can help people; they cannot replace them.

*Keywords:* civilization, artificial intelligence, progress, philosophy

## Introduction

Since the first task of philosophy is to understand the question, the first question is "What is artificial intelligence (AI)?"

So what is artificial intelligence? Artificial intelligence, which is the focus of the world's thinking today, is essentially a system of thinking without a living organism—control and management.

First of all, it should be noted that the analogy of artificial intelligence, like all dialectical and metaphysical, is based on antiquity.

Artificial intelligence preceded not only the invention of electronic engineering, computers or robots, but also simple mechanical large and complex machines, and in general, the substitution of artificial intelligence for human intelligence is of interest.

Historical sources in all fields lead researchers to myths and ancient Greek philosophy. First of all, it should be noted that the traces of artificial intelligence in myths not only determine the history of the phenomenon, but also expand its field of interdisciplinary research with the sciences of mythology, anthropology, ethnography, and ethnogenesis.

Thus, the first robot created by Zeus and named Talos with bronze wings from ancient Greek legends can be regarded as the "father" of modern artificial intelligence robots. One of the main features of this human-like

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robot is explained by the insertion of a tube of molten steel that flows from shoulder to foot into its “body”. Tolos, like modern electronic robots, had features such as sharp speed and stone throwing to replace humans.

Therefore, as the sources state, “Talos is a bronze legendary giant, the first robot in history to protect the Minoan Griti from invasions”<sup>1</sup>.

Interestingly, although Tolos had a different defensive power than humans, Minoan could not defend Griti for long and exploded in an enemy attack. The legendary imagination describes the sounds the Talos robot makes when it explodes as its laughter and emphasizes that the term “sardonic laughter” comes from here.

Adrienne Mayor, a researcher at the School of Classical Sciences at Stanford University, focuses on myths about the artificial female robot Pandora, like Tolos. The first subjects of artificial intelligence, robots and self-propelled objects were found in BC. It appears in the works of the ancient Greek poets Hesiod and Homer who lived between 750-650 BC. Concluding that the 700-year-old Talos legend is the oldest example of a robot, the researcher said,

Historians often date the idea of the machine to the Middle Ages, when the first self-propelled devices were invented, but the concept of artificial, living being at least 2,700. Myths are the subject of Old Machine and Technology Dreams. Our ability to imagine artificial intelligence goes back a long way. The idea of creating artificial life and robots was explored in ancient myths long before technological advances made self-propelled devices possible. (AncientPages.com, 2019)

Researcher Adrienne Mayor also analyzes the ancient world’s Pandore myth and calls it an artificial intelligence agent. This idea is the original interpretation and the agent can be thought of as a signal of dialogue with the modern world in the human subconscious system.

An interesting topic here is confirmed by the fact that the myths and legends of the ancient world created a rich library of science fiction and science fiction works in the history of the development of artificial intelligence. Similarly, in these studies, artificial intelligence covers the past and future of the world, and the solution of human needs, large and small, with the effect of involuntary forces.

Karel Chapek’s “Intelligent Universal Robots”, Arthur C. Clarke’s “The City and the Stars”, “Press the Button for Frankenstein”, E. van Vogt’s “The World of Moment”, Robert A. Heinlein’s “The Moon is a Tough Mistress”, and Dan Simmons’ Hyperion Songs, “Angels and Spaceships”, “I’m a robot”, “Two-year-old”, “Cyber”, “2001: Space Adventure”, and many more is an artificial intelligence ontology.

In these works, the fantastic transformation of the computer into a human being actually predicted that in the future, intelligent machines would replace human activity.

As time went on, the development of science fiction also contributed to the development of screen art and played an important role in the worldview as a whole.

Like myths, written literary and philosophical works of antiquity had similar definitions confirming the existence and possibility of artificial intelligence. However, during the Enlightenment period, there was a serious scientific interest in the main fields of artificial intelligence, especially in Europe, which was the cradle of modernism.

Descartes, Hobbs, Blaise Pascal and Leibniz and later Charles Babbage and Ada Lovelace, Bertrand Russell and Whitehead, Conrad Tsuze, Warren McCullough and Walter Pitts and others enriched the field with valuable scientific innovations.

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<sup>1</sup> Талос—бронзовый мифический великан. <https://www.grekomania.ru/articles/114-talos>.

Although the research of these scientists was based on the analysis of mechanical materialism in humans and living organisms in general, they revealed the possibilities of the mind and produced experimental examples of this.

In this regard, the beginnings of artificial intelligence super digital computers are analog systems, such as nomogram, slide rule, astrolabe, oscilloscope, television, analog sound processor, autopilot, as well as acabus. Therefore, the analogous field of artificial intelligence is strong and wide, as well as sustainable.

The field of artificial intelligence is wide and full. So what is artificial intelligence—the question can be answered like smart thinking machines. But we cannot use the expression: A car is as sensitive as a real person. But can machines replace a man who has been tried and accepted wisely by the masses of artificially intelligent creatures? If he can give the first answer, the one who thinks deeply will answer “No”. Because as time goes on, creativity requires innovation, and also the consciousness of machines cannot be equated with the imagination of the creative individual.

If we compare the intellect of the most perfect man with the most powerful computer, the former still has the advantage, because the creator of the latter is again a perfect man. We all know the saying, “His brain works like a machine”, for intelligent people. But we cannot use the expression: A car is as sensitive as a real person.

Regardless of the field of science, the power to create is characteristic. It is based on innovation. However, no matter how synthetic the information of a computer’s memory, it is not as vast as the archive of human consciousness, nor does it have the quality of “impermanence”.

To give such a simple example, let’s take the sensitive buttons of a computer to “create” with a person who is in good health and in good spirits for creativity. This person can think tirelessly for hours during the day. However, in a smart car, a computer must “rest” after a certain hour. The latter’s creativity can also be hampered by a power outage or internet connection, but once a person begins to create for the creator, these strokes cannot be an obstacle.

From this point of view, artificial intelligence cannot create the “miracles” that man creates with his natural intellect and in any field. The machine does not think, its mind is simply to present the information of its choice in the directions determined by the person as an exhibition. He can also say that smart cars, like guides, only have the function of showing. Smart machines do not take on the task of analyzing and drawing conclusions.

Psychological approaches and predictions of an intelligent person cannot be replaced even by machines “loaded” with the strongest logical syllogisms. If the issue is still assessed by the criteria of nationality and identity, no intelligent machine will be able to replace the national creative person. That is, no matter what or what subject can be modeled, it seems impossible to find a smart machine button that can replace a smart person in the indices of ethnogenesis and ethnopsychology.

### **Main Part**

First of all, it should be noted that artificial intelligence, one of the most important areas of research in the multidisciplinary system that forms the basis of modern science, stands out in the context of theoretical and methodological approaches to mathematics, logic, physiology, neurophysiology, psychology, cognition, epistemology, philosophy, and many other sciences.

It is a fact that the methodology of artificial intelligence is understood and imagined through philosophical analysis and evaluation because it is related to the theory of these sciences, including consciousness. For many

years, these two sciences—artificial intelligence and philosophy—created a new and comprehensive multidisciplinary methodology with the influences of epistemology and gneseology. Of course, no matter how old the history and methodology of philosophy, the methodology of the artificial intelligence system has been developing specifically since 1936. The artificial intelligence system, based on the work of British mathematician and logician Alan Turing, has been successfully observed both theoretically and experimentally for 85 years. Practice without methodology, methodology without experience is impossible. From this point of view, the evaluation of new theoretical topics in the context of scientific multidisciplinary research of intelligent machine systems has accelerated the development of this scientific philosophy of artificial intelligence and its methodology. Their assessment determines the development of artificial intelligence's scientific philosophy and methodology.

Based on this, we can say that Turing gave the world thinking the methodology of “smart” computers in the face of millions of human questions. This was the revolutionary progress of the new civilization. At the same time, artificial intelligence has brought about the collapse of modernism, which is based on the enormous potential of the human mind and its practical activity.

In our opinion, it is necessary to briefly recall the unique services of the English mathematician and logician Alan Turig, whose name is synonymous with the history of artificial intelligence, in the development of computer science. Thus, at the age of 24 years, in 1936, Alan Turig published a book entitled *On Computable Numbers, with an Application to the Entscheidungsproblem*. In this work, he introduced the new idea of “Turing machine”, which is considered the “father” of modern universal computers, which took the science of computer science with a powerful leap and forever engraved its name in the world scientific thought.

With a thorough education in mathematics and cryptology, Turing's life included working at Cypher School, a government code-breaking organization, as well as being a leading participant in wartime code-breaking, and five major advances in cryptanalysis used to decipher German Enigma cipher signals. It is also important to write two works, “Code” and “Super School”.

Turing's scientific activity in the 1940s attracted greater success. He started working at the National Physical Laboratory in London, overseeing the design of the Automatic Computing Engine, and in recent years, in nearly 70 years, has brought the world's first widely used personal, shop computers to the market.

In the late 1940s, this unique intellectual, who held senior positions in mathematics and computation, substantiated and proposed the subject of artificial intelligence specifically in his valuable works known in 1950 as “Computing and Intelligence” and the “Turing Test”.

Alan Turing's “Chemical Foundations of Morphogenesis”, published in 1952, has a special place in his scientific legacy. It is that Alan Turing made great scientific achievements in 1950-1952, but after an accident in 1952, he met the bitter end of his life and died mysteriously in 1954.

The works of the great scientist were published in large numbers 40 years after his death, and for 28 years the world has benefited widely from Turing's artificial intelligence system, and a generation of scientists following his path is developing scientific experiments with their innovations.

Currently, the UK ranks first in Europe in terms of AI development. In the UK, which ranks third in the world after the United States and China, AI is widely used to increase the efficiency and development of digital services, land use using satellite photography, and so on. The UK, along with Canada and Israel, plays a key role in the evolving AI ecosystem. In April 2018, the government released a strategy document on artificial

intelligence, stating that an artificial council in the industry would be established in collaboration with academics. The council will lead the development of AI, oversee the implementation of state policy in this area, promote industry and advise the Government on artificial intelligence. In addition, the government will set up an AI unit to work with the council, which will promote the implementation of a national strategy in this area and co-operate with other governments (AncientPages.com, 2019).

The term “artificial intelligence”, borrowed from Turing’s machines or Thuringian tests, was coined in 1956 by John McCarthy, an American computer scientist and recipient of the Turing Award for Distinguished Service in SI (1971).

The essence of artificial intelligence is the idea of replacing human consciousness and activity with artificial mechanical-engineering machines. The most important question in Artificial Intelligence Philosophy is about the sustainability of artificial intelligence as traditional intelligence. Modern scientific opinion is not unanimous in its answer to this question. Therefore, the general opinion does not believe in the future of artificial intelligence and does not even want to imagine that it will rule the world.

There are even thinkers who regard its end as the end of Tholos, an example of ancient artificial intelligence.

However, the idea of the benefits of artificial intelligence is based on a more realistic basis. For example, the importance of artificial intelligence in the inevitable health of our lives is reaffirmed in the following quote:

“According to the WHO, the world’s 2.4 million doctors, nurses, and midwives are in short supply, and the need for telehealth, self-examination biochip sensors, and other automated systems could increase dramatically as people live longer” (Millennium Report Philosophy of Life and Realities of 2007, 2007).

Or the measures in the Global Challenge 8: “Increase telemedicine and AI diagnostics as the shortage of health workers in the poorer parts of the world worsens”; “Promote telemedicine, including online diagnosis and AI, an expert program” (Millennium Report Philosophy of Life and Realities of 2007, 2007).

In addition, the usefulness of artificial intelligence in the field of education is high.

The combination of advances in nanotechnology, neurology, artificial intelligence and interactive object-based artificial online worlds will make education even more empirical and attractive by 2030; many traditional education systems will be replaced by Internet-based systems; the demand for traditional schools and human teachers will disappear. (Millennium Report Philosophy of Life and Realities of 2007, 2007)

Artificial intelligence has evolved from simple intelligent machines to computers with a wide range of capabilities, to the level of progress in the field of robot technique. Really at present, the science of artificial intelligence is experiencing such a strong postmodernist leap that the world’s surrender to the power of artificial intelligence and its replacement by man is very thought-provoking. From smart computers to smart cities, the phenomenon of millions of artificial controls is rapidly making its way into the future.

It is not excluded that in this history there are problems of a regressive nature, as well as progressive. Most importantly, the two interdependent phenomena—the progress and regress—are related to humanity.

Here, the line of progress and regress development itself is of interest as a theory and methodology. It should be noted that in the past centuries, mechanical machines were a great scientific and progressive development of the time, and the failure of mankind to master this progress en masse, as well as the weak dynamics of the widespread application of the achievement to production, was tantamount to regression. That is

rapid advancement of mental intelligence on the one hand and backwardness on the other. Computers and robotics—the generation of intelligent machines is ideal, that is, the progress of development. In terms of intelligence, its opposite—the obsolescence of form and content—is assessed as an indicator of the level of regression. The progressive and regressive essence of the development of artificial intelligence is the dialectic of its philosophy, which has followed this phenomenon throughout history, and it is an ongoing phenomenon.

Thus, in the modern world where artificial intelligence is inevitable, the parallel development of progress and regression is also philosophically subjective objective.

It is known when COVID-19 suddenly knocked on our door and formed new laws and rules. However, it is unclear when he will completely disappear from our lives. It is also known how many people this dangerous nightmare has taken from the world so far, but it is unknown how many more will be lost. Also, there are no devices or those who are interested in measuring the psychological trauma caused by this pandemic, which completely affects our lives.

In this historic period in which COVID-19 is with us, the rapid dynamics of virtual opportunities around the world are central to our success. Thus, during the current pandemic, the importance of artificial intelligence has been confirmed in the most serious areas, even in the simplest domestic affairs.

For example, from 2020, as the pandemic intensifies, the implementation of artificial intelligence has accelerated dramatically. During the pandemic, with the experimental capabilities of artificial intelligence, people were able to obtain accurate medical tests, operational monitoring, different predictions, including effective treatments, as well as the discovery of new drugs and even elementary information about this world phenomenon.

With the help of artificial intelligence, people were able to get answers to their questions in different languages. Artificial intelligence also “armed” man with the BlueDot warning system, which was used during the pandemic to combat the COVID-19 pandemic with its charm and basic power, as well as a diagnostic tool, such as XGBoost, which quickly analyzes blood samples. The discovery and testing of COVID-19 vaccines also confirms the vital role of artificial intelligence. “Over the past decade, artificial intelligence (AI)-based models have revolutionized drug discovery in general” (Zhong et al., 2018; Duan et al., 2019; Lavecchia, 2019, as cited in Arshadi et al., 2020); implemented Natural language Processing (NLP) for the identification of adverse events related to Tdap vaccines (Zheng et al., 2019, as cited in Arshadi et al., 2020).

Therefore, the importance of artificial intelligence as a philosophy of life today is undeniable.

In our opinion, we can inspire optimism by separating the masses from the general disturbing information, emphasizing the importance of the world of artificial intelligence, in which people are dynamically thrown away by the pandemic.

Based on the experience of the People’s Republic of China, Samer Obeidat wrote “How artificial intelligence helps fight the COVID-19 pandemic?” The article outlines seven keys:

1. The role of AI (eg, Canadian-based BlueDot) in monitoring and controlling the spread of the pandemic, and in the combined analysis of individual, clinical, travel, and social data, including lifestyle habits;
2. VIRTUAL HEALTH ASSISTANTS (Chatbots). Multilingual virtual health agent from the Canadian Artificial Intelligence Center, who can answer questions about COVID-19 accurately and recommend reliable information and protection measures;
3. COVID-19 DIAGNOSTIC AI thanks to technology developed by Linking. Immediate diagnosis, rapid response measures such as quarantine to prevent further spread of infection. The platform, which is new in China, was supported by Paddle Paddle, Baidu’s open source in-depth learning platform;

4. FACE RECOGNITION AND ENVIRONMENTAL DETECTOR AI Thermal cameras have been used for some time to detect people with fever. The lack of technology created a need for a human operator. But now cameras with AI-based multisensor technology are used in airports, hospitals, nursing homes and so on. posted. The technology automatically detects hot faces and monitors their movements, recognizes their faces and determines whether the person has a face mask;

5. SMART DREONS & ROBOTS The mass deployment of drones and robots has been accelerated due to the serious social exclusion measures required to prevent the spread of the virus. To ensure compliance, some drones are used to track people who do not wear face masks in public, while others are used to disseminate information to a wider audience and to disinfect public places. MicroMultiCopter, a technology company based in Shenzhen, has helped reduce the risk of virus transmission by transporting medical samples and quarantine materials within the city through the deployment of drones. Robots are used in the supply of food and medicine. It is useful for health care workers in terms of risks. Rooms are cleaned and robots are sterilized by robots. Catering industry-based Pudu Technologies has expanded into the healthcare sector by placing robots in more than 40 hospitals for this purpose;

6. CURATIVE RESEARCH. The SI virus could be a potential game changer, as shown by companies such as Exscientia, an English discovery that offers a drug molecule with an artificial intelligence design. They promise one year compared to the five-year average time required by the Algorithm to develop the molecular structure of traditional research methods;

7. INFORMATION CHECKING. Technology giants such as Google and Facebook, which represent SI, are battling conspiracy theories, phishing, misinformation and malware. They provide a signal indicating the search for Coronavirus/COVID-19, associated with confirmed data sources. YouTube, on the other hand, connects users directly with WHO and similar trusted organizations. Videos that provide incorrect information are searched and deleted as soon as they are uploaded. ... As the SI world shares with other sectors in solving the problem, the light at the end of this tunnel shines brighter and creates the hope that the world needs in these uncertain times. (Samer, 2020)

However, the criteria of reality and objectivity of science also show the failures of artificial intelligence for today and the future

Let's take the pandemic field. First, world science predicted that the COVID-19 nightmare would occur 10 years ago. It is true that before COVID-19, Sars-Cov-2, Ebola, ZikA pandemic generations were also known. But the AI is too late to prevent this. The WHO was unable to prevent these nightmares, which became known 10 years ago.

Why today it is very gratifying to create hospitals run with the rich potential of artificial intelligence. But if such serious measures had been taken 10 years ago, if the predicted drugs and vaccines had been produced and applied, there would not have been so many losses.

The pandemic has been going on for more than a year, and the number of infected people is growing day by day, but there is a shortage of neither medicine nor enough vaccines. In our opinion, this confirms that artificial intelligence—smart machines—is not yet ready to replace humans.

In addition, the main area affected by the pandemic is education, and the most advanced countries in the world not only fully meet the requirements of such distance education, but also lag far behind.

Another issue, it is known, was migration before the pandemic. Today, statistics show that there are about 66 million migrants, including 28 million school-age refugee children.

Can migrants take advantage of artificial intelligence, including e-learning, during a pandemic?

Thus, the reality is that if the pandemic continues for several years, the education and unemployment concerns of the entire population, such as health, will increase, and the main issue is that artificial intelligence will not be strong enough to solve these problems.

How much and what percentage of artificial intelligence, which we believe and trust to replace the human mind, is ready to prevent it?

Unfortunately, there is no evidence to answer this question. Neither the United States, which ranks first in the world in the field of artificial intelligence, nor China, which ranks second, nor Britain, which ranks first in Europe, put an end to the current pandemic. Therefore, the world of artificial intelligence cannot predict when the scientific pandemic will completely disappear.

The pandemic continues to strike at the economy, education, medicine, social life, culture.

Artificial intelligence is not able to solve deepening problems.

But man is an eternal being, and it seems impossible for artificial intelligence to completely replace him. Here, the development of artificial intelligence is unequal in the example of the integration of 195 countries in the world. Even the most developed countries are at such a competitive level. This represents an ongoing regression, and the faster the improvement, the stronger the regression. Rather, there are countless “intelligences”—convincing scientific evidence that a logical, living person’s intelligence is superior to an artificial intelligence system. Artificial intelligence, for example, needs three million words for the author of this article to speak only in their native—Azerbaijani language. If we multiply this number by 6,900 world languages, the success of artificial intelligence in this area is impossible. At the same time, artificial algorithmic systems do not seem convincing enough to replace the emotional intelligence of the creative people of the nations.

We would like to remind you of the thoughts of the world-famous Azerbaijani scientist Lotfi A. Zadeh, who is the only person selected as the life professor of AI for his great achievements in the field of artificial intelligence:

You may be in your life, you will never learn anything about Lotfi A. Zadeh, and his fuzzy logic theory. But if your house has at least modern cars, then my thoughts and I are always and invisibly with you. For example, if you’ve bought an air conditioner from Hitachi, Sharp, know that this theory is what provides the temperature change levels. If the same companies sell you a microwave oven, know that the correct cooking strategy is provided by fuzzy logic theory. If you come across a Canon copier, Matsushita dishwasher or dryer, Daewoo or Samsung washing machine, Sony TV or computer, know that all these technologies are to some extent the result of Lotfi A. Zadeh’s fuzzy set theory. (Вестник Кавказа, 2013)

He also developed artificial intelligence in Lotfi A. Zadeh, Hitachi, Matsushita, Sharp, Nissan, Canon, Fuji, Electric, Toshiba, Omron, Sanyo, Sony Trinitron, Daewoo, Samsung, Nec, Honda, General Motors, General Electric, Motorola. DuPont, Kodak, and an AI robot called Alter (Blair, 1994).

However, it is interesting that Lotfi A. Zadeh, such a prominent figure in the artificial intelligence system, valued human intelligence—natural intelligence—more than artificial intelligence.

### **The Result**

Our scientific and objective conclusion from extensive analysis and evaluation is that artificial intelligence includes, first of all, the revolutionary evolution of the age of science—the progress of civilization. At the multidisciplinary level, he writes his history by penetrating almost all fields of science.

Thus, in today’s world where artificial intelligence is inevitable, human intelligence is again important for progressive development. This confirms the dialectical dependence of artificial intelligence on natural intelligence. So, the creation and widespread application of high-level intelligent machines depends on the highest level of natural man and his consciousness. This proves the impossibility of an artificial intelligence machine without reality, which will replace man in a very simple approach. In fact, even in three out of 195



countries in the world on the system of artificial intelligence, even the AI is not fully operational, and currently there are serious shortcomings in the theoretical and empirical nature.

Therefore, our final conclusion is that just as all scientific and theoretical navigation was brought to man by artificial intelligence, so the control of this field is possible by the will of man. In other words, artificial intelligence cannot replace or destroy the labor, the labor consciousness, which is useful for man and civilization, in spite of all its limitations. The comparison of the limits and continuity of the often obsolete electronic artificial intelligence, which is in the process of dynamic renewal with the dimensions of the human brain and creativity, is objectively in favor of the former, no matter how subjective. There is still no consensus on how long this will last.

## References

- AncientPages.com. (201). Earliest fascinating concepts of artificial intelligence and robots in ancient myths—Examined. Retrieved from <https://www.ancientpages.com/2019/03/06/earliest-fascinating-concepts-of-artificial-intelligence-and-robots-in-ancient-myths-examined/>
- Anderson, A. R. (1964). *Mind and machines*. New York: Prentice-Hall.
- Arshadi, A. K., Webb, J., Salem, M., Cruz, E., Calad-Thomson, S., Ghadirian, N., ... Yuan, J. S. (2020). Artificial intelligence for COVID-19 drug discovery and vaccine development. Retrieved from <https://www.frontiersin.org/articles/10.3389/frai.2020.00065/full>
- Blair, B. (1994). Interview with Lotfi Zadeh: Creator of Fuzzy Logic. *Azerbaijan International Magazine*, 2(4), 46-50.
- Block, N. (1994). On a confusion about a function of consciousness. Retrieved from <http://cogprints.org/231/1/199712004.html>
- Chalmers, D. J. (1995). Facing up to the problem of consciousness. *Journal of Consciousness Studies*, 2(3), 200-219.
- Guliyeva, K. (2018). Scientific-methodological aspects for application of multiculturalism to “dialogue philosophy” (formulation of the problem). *Rosenka Ukrainiska-Slovenska 2018-pap*. 126-133. 212 p. ISBN 978-80-8926-02-2.
- Guliyeva, K. (2019). Heydar Aliyev’s politics: National state, national leader, citizenship, spirituality. Baku, Elm. Pp.416.
- Guliyeva, K. (2020). Millennium report philosophy of life and realities of 2020. Retrieved from <http://science.gov.az/az/news/open/13002>
- Millennium 2018 report. Global Challenge 8. How can the threat of new and reemerging diseases and immune microorganisms be reduced. Retrieved from <http://www.millennium-project.org/challenge-8/>
- Millennium Report Philosophy of Life and Realities of 2007. (2007). Retrieved from <http://107.22.164.43/millennium/SOF2007-Azeri.pdf>
- Nath, R. (2009). *Philosophy of artificial intelligence: A critique of the mechanistic theory of mind*. California, USA: Universal Publishers.
- Samer, O. (2020) How artificial intelligence is helping fight the COVID-19 pandemic. Retrieved from <https://www.entrepreneur.com/article/348368>
- Schacter, D. L. (1987). Implicit memory: History and current status. *Journal of Experimental Psychology: Learning, Memory and Cognition*, 13, 501-518.
- Smart, J. J. (1963). *Philosophy and scientific realism*. London: Routledge.
- Аристотель. (1934). *Метафизика*. М.: изд-во Эксмо.
- Библер, В. С. (1975). *Мышление как творчество*. М.: Политиздат, pp.399.
- Бирюков, Б. В. (1979). О возможностях искусственного интеллекта. //Вопросы философии/. № 3. С. 89.
- Бруно, Д. (1949). *Диалоги*. М.: Гос.политиздат, pp.552.
- Вестник Кавказа. (2013). Fuzzy Logic Лютфи Заде. Retrieved from <https://vestikavkaza.ru/articles/Fuzzy-Logic-Lyutfi-Zade.html>
- Витгенштейн, Л. (1994). *Философские работы*. М.: Гнозис., pp.612.
- Дубинский, А. Г. (2001). К определению понятия “интеллект”. *Искусственный интеллект*, (4), 72-79.
- Никитина, Е. А. (2014). Искусственный интеллект: философия, методология, инновации. Retrieved from <https://cyberleninka.ru/article/n/iskusstvennyy-intellekt-filosofiya-metodologiya-innovatsii>

Отдел аналитики. (2019). Развитие искусственного интеллекта в странах мира: США, Китай, Великобритания. Retrieved from <https://d-russia.ru/razvitie-iskusstvennogo-intellekta-v-stranah-mira-ssha-kitaj-velikobritaniya.html>

Тьюринг, А. (1960). *Может ли машина мыслить?* М.: ГИФМЛ. Pp.67. <http://www.ict.nsc.ru/jspui/bitstream/ICT/885/5/CantheMachinethink.pdf>