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## **Modern Digital Technologies and AI ethics: Moral Relevance**

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**Abstract:** Philosophy is called upon to give meaning to new dimensions of the socio-cultural space, which require not only a rational and pragmatic analysis of functional parameters, but also an ideological and mental assessment. The purpose of the article is to analyse the transformation of the value and ethical standards for the use of artificial intelligence, given the change in its positioning in the system of social activity. A comparative and generalized analysis of 50 scientific papers has made it possible to identify the value factors that serve as guidelines in the process of forming the ethical foundations of artificial intelligence. The synergistic approach determines the prospects for transforming the philosophical and ethical support of the moral aspect of artificial intelligence. The results of the study point to the stabilisation of the status of artificial intelligence and the first attempts to unify the requirements for the ethics of its use in the socio-cultural space. The contradictions that arise in the context of actualisation of human dimension in the process of using artificial intelligence and its direct impact on humans are actualised. The statement of the reorientation of elements from the traditionally human potential (morality, responsibility, initiative, heuristics) to the cluster of artificial intelligence activity generates a natural reaction of man and society in the context of the need to regulate (following the example of the regulatory and

legal paradigm of social relations) the activities of this technology. Thus, artificial intelligence is gradually integrating into all spheres of social activity and acquiring a new status that involves active use of the advantages of technological, digital and information potential, which, in turn, requires new ethical standards to regulate the activity of these technologies.

**Keywords:** artificial intelligence, innovation activity, philosophy of technology, moral and ethical constants, worldview and mental paradigm.

## Introduction

Innovation implies the rapid introduction of new meanings and formats into the spheres of society's activity. At the same time, many clusters of social activity are characterised by the conservatism of their paradigmatic principles of functioning, and the involvement of dynamic elements in these areas causes heated debate in academic circles. It is clear that in such circumstances, moral and ethical dimensions are of particular importance in the worldview and mental paradigm.

The relevance of the impact of artificial intelligence is determined by the controversy of using innovative tools in the traditional environment. However, socio-cultural realities dictate that there is no alternative to the use of artificial intelligence in the field of economics and law:

- global trends in the digitalisation and technologisation of society;
- active use of artificial intelligence resources at the household level.

The analysis of the transformation of the status of artificial intelligence from an alternative to a fundamental tool for information and technological support and ensuring social activity allows tracing the problematic aspects of the formation of the principles and values of sustainable social development. The diversity of modern development of social activity determines the differentiation of artificial intelligence activity in the process of achieving the set goals: from a direct component to an auxiliary factor. Such realities determine the moral relevance of AI status and characteristics. Philosophy, in its turn, unlike more dogmatic worldview paradigms (religion, science), is flexible in a dynamic environment, so it is able to more quickly present new value orientations of innovative elements to society.

### *Research Problem*

Once again, in the context of cultural and historical experience, philosophy is gaining the status of a value and goal regulator. Following the example of technologisation in the modern era, when the philosophical tradition managed to convince society at the global level of the need to transform the existing mode of production and change the political system, the modern world also faces the need to interpret innovative elements associated with threats to humans and society. Most questions to AI regarding security and correlation with established social norms arise at the moral level. Therefore, philosophical attempts to value-order the principles of AI operation at this stage are focused on the ethics of using innovative technologies.

## *Research Focus*

Aware of the inevitability of practical application of artificial intelligence, the scientific community is developing algorithms for integrating this technological, digital and information resource. Understanding the need to correlate the peculiarities of artificial intelligence potential and the principle of social activity is the key to the effective and safe use of innovative elements in these areas.

## *Research Aim and Research Questions*

The purpose of the scientific research is to determine the current status and potential change in the role of artificial intelligence in the scientific and worldview paradigm and at the practical and everyday level. The article focuses on the institutional and functional features of artificial intelligence and the impact of this socio-cultural process on the moral and ethical dimensions of social development. The dynamism of the innovative impact of AI technologies on the ideological and moral standards of society actualises the philosophical case for streamlining the value target dimensions of this process. The factors that contribute to the demand for artificial intelligence have a specific classification in the moral and value paradigm. The main research questions are focused on identifying and philosophically and ethically interpreting the drivers of the introduction of artificial intelligence tools. The problematic issue is outlined in the context of positioning the negative dimension of artificial intelligence and identifying effective ways to block its impact. A special feature is the consideration of the moral and ethical component of artificial intelligence in the dynamics of innovative development of the socio-cultural environment.

## **Literature Review**

The issue of using artificial intelligence in the professional dimensions of social activities has become a hot topic in scientific discourse since the beginning of the use of this resource. Any innovations require a thorough analysis and clear planning for integration into established systems in various areas of social activity. The scientific discourse aims to systematise examples of artificial intelligence application with an analysis of the positive and negative effects of using these resources. Since artificial intelligence has acquired the status of a socio-cultural phenomenon (Sachs et al., 2019), the need to characterise its potential is an important task for the scientific community (Lu et al., 2018). The transformative role of artificial intelligence is becoming a key issue in modern research on this innovative element (Butcher & Beridze, 2019).

Moral and ethical issues have undergone a certain transformation in the scientific and philosophical discourse and have gone through certain stages of coverage over the past five years:

- planned ethical regulation of the use of artificial intelligence (Iphofen & Kritikos, 2019);
- a higher level of actualisation of artificial intelligence ethics compared to traditional technological elements (Kazim & Soares Koshiyama, 2021);
- standardisation of artificial intelligence ethics in the professional and ethical paradigm of modern society (Ashok et al., 2022);
- ethical digital transformation led by artificial intelligence (Saurabh et al., 2022);

- differentiating the ethical elements inherent in individual technological innovations (Sætra & Danaher, 2022);
- recognition of the existence of “white spots” of uncertainty in the ethics of artificial intelligence (Hagendorff, 2022);
- constructive ethics of ethical standards for artificial intelligence (Heilinger, 2022).

Paradoxically, despite the total dimension of uncertainty about the ethical characteristics of artificial intelligence, there is a growing consensus that it is inappropriate to give this technological element special attention from moral control (Bietti, 2021). There is a growing trend towards the uselessness of applying AI ethics in a specific context (Munn, 2023).

Yigitcanlar and Cugurullo (2020) emphasise the popularity of artificial intelligence in everyday life. The transformational mission (Ahmad et al., 2021) of artificial intelligence, which radically changes the principles of relations in society, is positioned separately. The overall mission of artificial intelligence is focused on achieving the principles of well-being (individual, social, or civilisational) (Thiebes, Lins & Sunyaev, 2021). Holloway and Mengersen (2018) focus on the security mission of artificial intelligence.

Zengin et al. (2021) describe the impact of artificial intelligence in the context of the development of Society 4.0 and the prospects for Society 5.0. Dhamija and Bag (2020) even propose the use of a new concept of “technological intelligence”, which will expand the concept of artificial intelligence and allow for a broader ethical framework for its use. The essence of moral relevance lies in the dynamics of society's development and the expansion of its potential, of which artificial intelligence becomes a part. The impact of artificial intelligence is still primarily determined by non-humans (Owe & Baum, 2021). That is, artificial intelligence is currently positioned as a factor of indirect influence on humans (through institutions, functionality, processes). However, in reality, the impact is growing quite intensively and requires the integrity of regulatory and moral order. This causes turbulence in the moral standards of using these technologies. Philosophy emphasises the need to grant artificial intelligence a status that corresponds to its real potential and the existing impact on humans. A similar view is expressed in the context of proposals for the next level of digitalisation, where artificial intelligence controls not only processes (Buchmeister, Palcic & Ojstersek, 2019) but also participants (Zinke-Wehlmann et al., 2022). Adding a human dimension to the use of AI opens up a qualitatively new format for philosophical analysis of innovations. Ethical norms of society have clearly defined standards that successfully guide civilisational progress. However, the extrapolation of these standards to humans is more sensitive in the existential and anthropological dimension.

It is worth emphasising the ideas that emphasise the inability of the current type of social order (both global and local) to effectively manage further civilisational development (Bolton, Raven & Mintrom, 2021). Under such conditions, the use of innovations is an inevitable process. The dynamism of the modern world order requires operational tools (Allal-Chérif, Simón-Moya & Cuenca Ballester, 2021), which fundamentally changes the moral paradigm of civilisation.

## **Research Methodology**

### *General Background*

The current study is conducted to highlight the process of transformation of artificial intelligence from an alternative innovative element of socio-cultural activity to a tool for achieving goals and the impact of this process on the moral and ethical system of the world order.

The article offers a qualitative study with a review of the scientific literature on the problem of using advanced artificial intelligence and the philosophical response to the transformations that characterise this process. The study is based on the works of the last five years (2019-2023), a period of super-active implementation of artificial intelligence in practical areas of social activity. The results of the study were based on scientific research, which focuses on the ethical and moral features of the introduction of artificial intelligence and the use of its resources. During the literature search, preference was given to publications included in the Scopus and Web of Science databases. Google Scholar, Taylor & Francis, and Researcher Gate were also used to collect information on the current study. The search was carried out using the following key phrases: artificial intelligence, philosophy, innovations, ethics, moral paradigm. Since the use of AI is of global importance, no regional restrictions were applied in the analysis of scientific papers.

The analysis allows us to trace the transformation of the positioning of both the functional demand for artificial intelligence and the fundamental understanding of this technological and digital unit in the modern information society. The comparative analysis determines the change in the perception of artificial intelligence in the scientific community and in the practice-oriented environment. The prospects and risks of using the potential of artificial intelligence for moral and ethical principles are identified through modelling and forecasting.

A separate methodological niche in the current scientific research is occupied by philosophical synergistic approaches. Given that the study was conducted in the context of the dichotomy of moral and ethical dogmatism and innovative dynamism, the principles of synergy using elements of interdisciplinarity, and multiculturalism allowed to reconcile these irreconcilable constants and bring them to a common value and purposeful denominator.

## **Research Results**

The need to use innovative elements has become an obvious strategy for modern socio-cultural development, as existing models have proved unable to maintain the dynamics of progress and provide parameters for the well-being of civilisation. Gradually, the decision to introduce artificial intelligence acquired a political colouring (Yigitcanlar, Mehmood & Corchado, 2021). Given the active use of artificial intelligence in the education and science system, the role of this resource will only grow (Chiu & Chai, 2020). Analysing the expanding use of artificial intelligence and its popularisation in the public consciousness, it is obvious that all spheres of social activity will actively incorporate this tool into their paradigm.

Obviously, such activity will provoke a reaction from the axiological, anthropological and ethical cases of the worldview paradigm. Such an accumulative actualisation can also activate

the existential nature of the positioning of artificial intelligence. Such an active innovative influence needs to be explained to society. The scientific and rationalist cluster focuses on the functional characteristics, leaving aside the moral and ethical side of the innovative technology ecosystem.

Today's society has clearly formulated new guidelines for the development of artificial intelligence in the global sense, focusing the purpose of such a powerful resource on common problems without dissipating the potential on small factors (Del Río Castro, González Fernández & Uruburu Colsa, 2021). However, the elimination of the moral and ethical factor leads to the creation of stereotypes, myths and shakes that can potentially either be confirmed and pose a threat to humans and humanity, or simply slow down the progressive trends of information and technological development. Artificial intelligence is undergoing a period of transformation in the context of determining its impact in modern society. The use of artificial intelligence potential during the period of its introduction as a technological, digital and information tool was innovative and perceived as an alternative resource for the development of these industries. At first, the share of artificial intelligence use was rather small and was characterised mainly by interest in innovation rather than systematic practical application. However, over time, the intensity and scale of the use of artificial intelligence resources in everyday life and media and information life has increased significantly, which has led to a revision of the status of this tool in special professional areas, in particular in the economy and the legal system (Table 1).

**Table 1**

*A comparative analysis of the scale of artificial intelligence uses in the period of its formation and in the times of its establishment in the socio-cultural space*

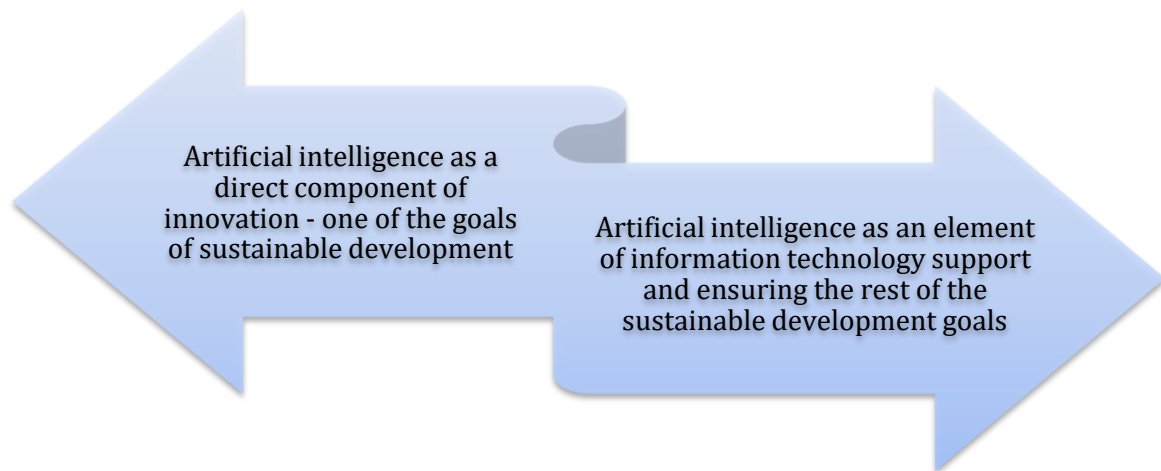
| Tool                    | The status of an alternative innovation element in the professional space   | Status of fundamental information and technology resource for supporting social activities  |
|-------------------------|---|---|
| Artificial intelligence | Use of artificial intelligence elements as innovative (often unverified or unofficial) tools for dealing with assets or cases that require a new approach to solving their problems | The use of artificial intelligence as a component of general professional activity in the field of law and economics with a clear definition of the boundaries and competences related to the innovation factor |

Source: author's own development

Having reached the level of demand in modern socio-cultural activity, artificial intelligence is forming new positioning roles in the paradigm of social development (Figure 1). Such positioning already requires a value and purpose justification, so the philosophical interpretation of moral and ethical principles of use becomes the first stage of the process of legitimising artificial intelligence in the worldview and mental paradigm.

**Figure 1**

*Positioning artificial intelligence in the moral paradigm*

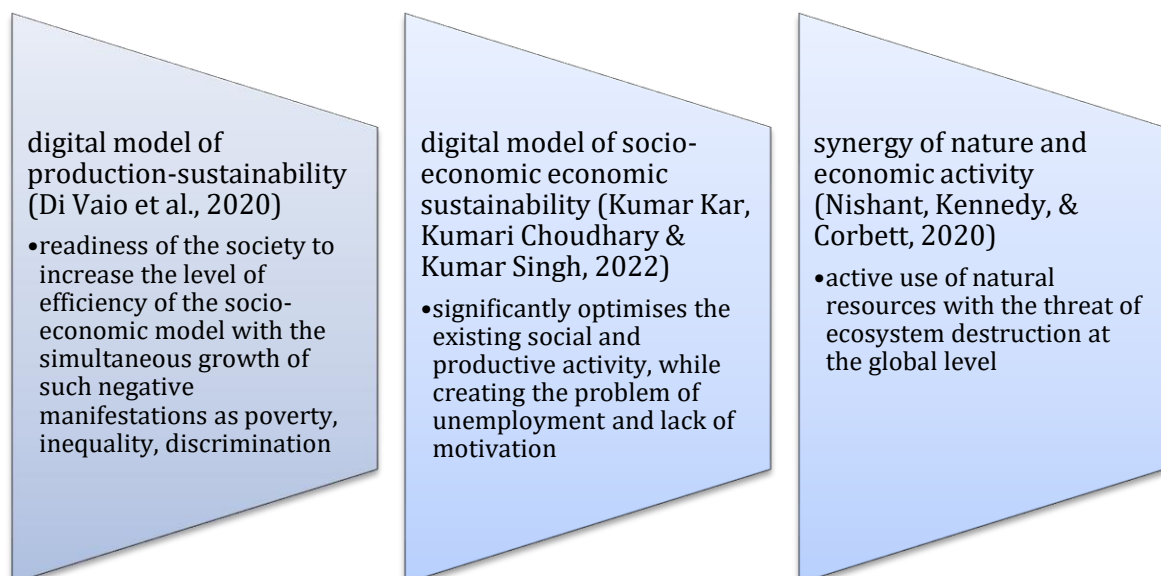


Source: authors own development

One of the key tasks of modern civilisation is to preserve equality and diversity in society (Goralski & Keong Tan, 2022). To achieve this complex task, the global community is mobilising all available resources. Therefore, shifting the focus from traditional strategies to the implementation of innovative models is a relevant worldview transformation. In such realities, tools that can provide an innovative format in socio-economic life acquire a new status of demand. Among the practical steps of using artificial intelligence in solving social problems, there are elements that are controversially perceived in the context of moral standards (Figure 2).

**Figure 2**

*Socio-cultural contradictions caused by AI activity*



Source: authors own development

The moral problem of is quite obvious in these examples, as artificial intelligence operates on the principle of efficiency. The priority of the result in the short-term and strategic plan is fully consistent with rational and pragmatic principles. At the same time, there is a problem of the polar vector of the social system - mental and moral. It is worth noting the relevance of moral standards for the use of artificial intelligence.

Currently, society has a well-developed algorithm according to which: the emergence of a problem related to the use of artificial intelligence randomly escalates and requires a decision. Such decisions, which actually regulate the use of innovative technologies, are made in favour of the appealing party and regulate (prohibit, restrict, optimise) the activity of AI use.

Such a system only creates the illusion of efficiency and integrity in solving the problem of artificial intelligence. At the same time, the fundamental aspects of the impact of technological innovations on traditional dimensions of social life are not addressed. Granting artificial intelligence human rights and opportunities carries liability risks (Fritz et al., 2020). Moreover, it is not possible to apply the format of individual responsibility, as AI positioning is not personalised (Tigard, 2021). This reduces the perception of the AI carrier to a character rather than a person. Thus, the concept of responsibility is dispersed in the global identification of artificial intelligence.

If this problem is viewed through the prism of the traditional human-dimensional context, then if a person committed a crime, he or she would not even bear personal responsibility for it, which would be borne by global humanity. It is clear that such a state of affairs cannot be realised in today's established society.

The use of artificial intelligence in the context of the relationship between morality and law is problematic, as the technology focuses on solving conceptual and procedural aspects, which determines its theoretical and practical value. The traditional legal dimension does not cover all geospatial legal issues (Kouziokas & Perakis, 2017). Therefore, artificial intelligence is intended to expand the indisputable status of the rule of law in terms of information and technology. On the other hand, functional relevance cannot be equated with moral and legal values, which are unattainable for artificial intelligence.

However, the active use of artificial intelligence resources in the practical legal system makes the moral discourse on these technologies relevant. Among the key moral and legal aspects that require the use of the information and digital arsenal of artificial intelligence are respect for human rights in a civilised society (Richie, 2022), algorithms of responsibility for violation of existing norms and laws (Isensee, Griese & Teuteberg, 2021), and improvement of the concept of justice (van Wynsberghe, 2021).

In general, society has begun to record the first results of the positive impact of artificial intelligence in the development of information and technological potential, among which the availability of data (primarily variable data (Jan, 2018), computing capabilities and work algorithms deserve priority attention (Mhlanga, 2021). The mainstreaming of artificial intelligence has resulted from the active use of this resource due to its accessibility and functional clarity. Given the tendencies of interdisciplinarity in the scientific and ideological

paradigm, artificial intelligence is the optimal tool for this type of cognitive activity (Liu et al., 2018).

Artificial intelligence has become the optimal combination of functionality and resource costs in solving urgent problems. Obviously, at this stage of the implementation of the strategy of civilisational progress, artificial intelligence occupies its unique niche, which is characterised by a high level of efficiency in the information technology dimension.

If this process is complemented by clear and relevant moral and value standards for the use of artificial intelligence, information and technological development will become holistic and globally harmonious.

## **Discussion**

The transformation of the role of artificial intelligence in legal and economic systems has led to a revival of discussions on the status of this tool in the paradigm of social activity. In general, any innovative element forms new algorithms of professional activity, so intensifying the discussion of positive and negative manifestations characteristic of artificial intelligence resources is a common process for scientific discourse (Georgieva et al., 2022).

On the other hand, the results of the study show that the problem of introducing artificial intelligence is gaining strategic clarity and orientation, which determines the need to unify algorithms for using this resource. The reorientation of the role of artificial intelligence from an innovative alternative element to an important factor in information technology support of economic and legal activities is accompanied by contradictions in scientific discourse both within industries and in the context of a global understanding of life and development of modern society. However, these contradictions are gaining a systematic targeted understanding of innovation as one of the fundamental principles of sustainable development.

The current study has confirmed the tendency to unify the status of artificial intelligence in all spheres of social activity (Möllmann, Mirbabaie & Stieglitz, 2021). The strategy of moral and value constants was expected to become a factor that consolidated views on the prospects of artificial intelligence in the context of civilisational development (Constantinescu et al., 2021). The scientific discourse has received a unified benchmark of a potential niche in which artificial intelligence will realise its advantages in the legal and economic space.

Obviously, this benchmark is in a relevant mode, since moral and value standards are not formed overnight. Testing, verification, refinement, supplementation - all these are the realities of the moral and ethical paradigm of the formation of an information technology case in the modern world picture.

At the same time, the results of the study encourage us to be prepared for the potentially unexpected impact of artificial intelligence on moral and value standards, which is a consequence of the dynamism of this information and technological resource, which generates unpredictable results of its use. In this context, society will face a choice: further development of artificial intelligence or its prohibition. Philosophy does not aim to influence the outcome of this choice. It is also not the task of philosophy to justify the positive or negative dimensions of artificial intelligence in the cluster of ethics and morality. These points will be more reasonably

covered in scientific discourse. However, the readiness of society for a potentially possible choice to allow or prohibit artificial intelligence is a key task of philosophical discourse.

The analysis of studies on the use of artificial intelligence demonstrates a number of common views on the demand for and effectiveness of this resource and its synchronisation with moral guidelines:

- Artificial intelligence provides holistic information monitoring of life in the community (Singh et al., 2020), the state (Deep Sharma, Yadav & Chopra, 2020), and the world (Burke et al., 2021);

- Artificial intelligence allows to classify problems and determine the best algorithms for their solution (Parth, 2018).

At the same time, some statements contradict existing views on the prospects for the status of artificial intelligence. The “toothlessness” of the ethical component of artificial intelligence (Rességuier & Rodrigues, 2020) may threaten the loss of control and regulation of this technology in general. In turn, Truby (2020) notes the problem of regulating the artificial intelligence resource by government institutions and in the context of global development (Vesnic-Alujevic, Nascimento & Pólvora, 2020). It is noted that it is virtually impossible to unify the policy of using artificial intelligence at different management levels due to different levels of information and technological development, which, in turn, will constantly become an obstacle to the stability of the use of artificial intelligence potential. This, in turn, will become an additional driver for discriminatory manifestations of inequality and injustice.

New views on the role of artificial intelligence should be considered a new positioning of this tool (Belk, 2020). In fact, it is advisable to apply new criteria for correlation with existing value statements (Bertoncini & Serafim, 2023), given the relevance of socio-cultural development.

Artificial intelligence, as one of the fundamental principles of development and innovation, will only contribute to the establishment of moral principles through the human desire and ability to improve and self-realise.

In order to avoid the risks associated with the use of artificial intelligence and its potential threat to the moral dimension, it is proposed to use the idea of human-centred artificial intelligence (HCAI), which will allow to keep the humanistic and democratic values of civilisation as a priority (Shneiderman, 2020). At the same time, it is necessary to prevent the false algorithm according to which the future of humanity is determined by technology, and to preserve the value dimension, which implies that the future of humanity is determined by man and society (Kostoska & Kocarev, 2019).

Despite the debatable prospects for the use of artificial intelligence, it is worth noting the unambiguous impact of this information technology resource. Given that sustainable development can only be achieved if there is a high level of self-organisation and integrity of organisational institutions, artificial intelligence should be considered in the context of synergistic interaction in society, the state, and the international community.

## Conclusions and Implications

Thus, artificial intelligence is gradually occupying its unique niche in the modern world. The phenomenon of artificial intelligence is dictated by the synergy of the fundamental nature and dynamism of this resource, which allows the use of innovative elements in the traditionally dogmatic worldview and mental paradigm. An analysis of the scientific discourse on innovative elements as one of the key principles of sustainable development indicates a reorientation of the role of artificial intelligence from an alternative tool to becoming fundamental in the issue of factors of global progress. In this context, the moral and ethical case of worldview and mental verification of technological potential for potential threats to humans and humanity is becoming more relevant. The use of artificial intelligence is associated with decision-making. This is where the key contradiction between the rational and pragmatic and moral and value segments arises. The dynamism of the modern socio-cultural space determines the relevance of moral and value constants that determine the principles of application of innovative technologies. The prospects of the study are associated with the establishment of a synergistic approach, which is designed to achieve an appropriate level of universalisation of the use of innovative elements in the strategy of sustainable development.

## Suggestions for Future Research

Prospects for further research are focused on identifying a unified approach to assessing the practical activities of artificial intelligence. Already now, in the context of the transformation of the role of artificial intelligence from the status of an alternative innovation to a full-fledged practical tool for information and digital support and provision, a number of moral and value contradictions have emerged. It is clear that with the further establishment and strengthening of artificial intelligence, the moral relevance of its characteristics will decrease in favour of the need to formulate sustainable value and ethical standards for the use of such technology.

Among the possible ways to regulate the use of artificial intelligence in the worldview and mental paradigm, two key options should be distinguished:

- centralised, according to which the moral, value and regulatory principles of artificial intelligence activity are reduced to a peremptory control and regulatory nature, in which philosophy plays the role of interpreting the need for strict regulation of technological development in general;
- synergistic, which provides for a flexible paradigm of value and moral principles that will accompany the use of artificial intelligence due to the deep integration of this technology into the spheres of social activity with the concomitant human dimension of its use.

Both ways have both positive and negative development scenarios. The centralised option is difficult to implement due to the practical impossibility of controlling and standardising the information and digital cluster in modern society. The synergistic option, in turn, although it can cover the entire spectrum of artificial intelligence activity through an interdisciplinary approach, does not have the proper regulatory policy functionality. Therefore, moral relevance in the context of artificial intelligence will retain its status in the short term due to the socio-cultural uncertainty of the role of artificial intelligence.

The task of the philosophical and ethical discourse is to mentally characterise the potential of artificial intelligence and the threats associated with its use. At the same time, philosophical cases (axiological, ethical, and even existential (given the rapid increase in the scale and intensity of AI)) are intended to explain to society the real positioning of artificial intelligence in the scientific and technological picture of the world. And the realities point to the uncertainty of the status of artificial intelligence and the moral relevance of its value and ethical standards.

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### **Conflict of Interest**

None.

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