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Original Theoretical Research

Social and Philosophical Aspects of Digital Ethics: Challenges, Prospects, and Significance in the Technological Progress Era

Marina V. Alekseeva[1,2], **Anna A. Rokotyanskaya**[1]

[1] Don State Technical University, Rostov-on-Don, Russian Federation

[2] Rostov Branch of Russian Customs Academy, Rostov-on-Don, Russian Federation

✉ alekseeva80@yandex.ru

Abstract

Introduction. The digital age has brought radical changes to social, cultural, and economic structures, presenting society with new ethical challenges. This article examines the philosophical aspects of digital ethics, including the impact of technology on human rights, privacy, socialization, and equality. It highlights issues of data privacy, the development of regulatory acts, and the standardization of the use of advanced technologies such as artificial intelligence and the Internet of Things. The main focus is on the need for an interdisciplinary approach to creating ethical standards that promote the harmonious and equitable technological development of society. Emphasis is placed on the importance of digital education, public dialogue, and collective responsibility in building an ethical future in the context of accelerating technological progress.

Materials and Methods. The study was conducted using a combination of theoretical and empirical methods of scientific inquiry. The work employed dialectical methods, a systematic approach, analysis and synthesis, as well as forecasting and modeling techniques. Particular attention was paid to ethical and philosophical categories related to digitalization and its impact on humanistic values. Interdisciplinary approaches were used to analyze the issues, including elements of computer science, sociology, philosophy, and ethics.

Results. The study examined key concepts such as “digital ethics”, “technological humanism,” and “ethical challenges of the digital age”. An analysis of the current level of interaction between technology and ethical norms was conducted, revealing that the rapid growth of the digital sphere is accompanied by difficulties in integrating moral principles into its development process. The main areas where violations of ethical norms conflict with the interests of the public good were identified, including issues of information security, data privacy, artificial intelligence, and developer responsibility. The conclusion was made that there is a need to create a flexible control system that takes into account both national and international ethical standards.

Discussion and Conclusion. Research shows that digitalization has a significant impact on quality of life and requires in-depth ethical analysis. The strong correlation between quality-of-life index and Internet access confirms that broadband access is not only a technical but also a social challenge. However, accessibility alone does not ensure equal development: a developed electronic infrastructure, reliable cybersecurity, and effective management are also needed. Philosophically, digital transformation is dualistic. It improves well-being but poses threats to privacy, autonomy, and social justice. Interdisciplinary interaction and public dialogue are key to developing adequate standards: the state, business, science, and civil society must jointly develop practices that take into account technical and humanitarian aspects.

Keywords: digital ethics, technological progress, philosophy of technology, artificial intelligence, privacy, human rights, social equality, ethical dilemmas, digital governance, education

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Оригинальное теоретическое исследование

Социально-философские аспекты цифровой этики: вызовы, перспективы и значение в эпоху технологического прогресса

М.В. Алексеева[1,2], **А.А. Рокотянская**[1]

[1] Донской государственный технический университет, г. Ростов-на-Дону, Российская Федерация

[2] Ростовский филиал Российской таможенной академии, г. Ростов-на-Дону, Российская Федерация

✉ alekseeva80@yandex.ru

Аннотация

Введение. Цифровая эпоха привнесла кардинальные изменения в социальные, культурные и экономические структуры, поставив перед обществом новые этические вызовы. В связи с этим актуально рассмотрение философских аспектов цифровой этики, включая влияние технологий на права человека, приватность, социализацию и равенство. Интерес представляют проблемы конфиденциальности данных, разработка нормативно-правовых актов и стандартизация использования передовых технологий, таких как искусственный интеллект и интернет вещей. Настоящее исследование направлено на систематизацию ключевых проблем цифровой этики и поиск решений, способных обеспечить гармонию между технологическим развитием и основными гуманистическими ценностями.

Материалы и методы. Исследование проводилось с использованием комплекса теоретических и эмпирических методов научного познания. В рамках работы применялись диалектический метод, системный подход, анализ и синтез, а также методы прогнозирования и моделирования. Особое внимание уделено рассмотрению этических и философских категорий, связанных с цифровизацией и её влиянием на гуманистические ценности. Для анализа проблематики использовались подходы междисциплинарного характера, включающие элементы информатики, социологии, философии и этики.

Результаты исследования. Рассмотрены такие ключевые понятия, как «цифровая этика», «технологичный гуманизм» и «этические вызовы цифровой эпохи». Проведен анализ текущего уровня взаимодействия технологий и этических норм – выявлено, что быстрый рост цифровой сферы сопровождается сложностями в интеграции моральных принципов в процесс её развития. Выявлены основные направления, где нарушение этических норм входит в противоречие с интересами общественного блага, включая вопросы информационной безопасности, приватности данных, искусственного интеллекта и ответственности разработчиков. Сделан вывод о необходимости создания гибкой системы контроля, учитывающей как национальные, так и международные этические стандарты.

Обсуждение и заключение. Исследование показывает, что цифровизация заметно влияет на качество жизни и требует глубокого этического анализа. Сильная связь между индексом качества жизни и доступом в интернет подтверждает: широкополосный доступ – не только техническая, но и социальная задача. Однако сама доступность не обеспечивает равного развития: нужны развитая электронная инфраструктура, надежная кибербезопасность и эффективное управление. Философски цифровая трансформация двойственна: она улучшает благосостояние, но создает угрозы приватности, автономии и социальной справедливости. Междисциплинарное взаимодействие и общественный диалог – ключ к выработке адекватных стандартов: государство, бизнес, наука и гражданское общество должны совместно разрабатывать практики, учитывающие технические и гуманитарные аспекты.

Ключевые слова: цифровая этика, технологический прогресс, философия технологий, искусственный интеллект, приватность, права человека, социальное равенство, этические дилеммы, цифровое управление, образование

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Introduction. The modern era of digitalization has led to radical changes in human society, affecting not only the scientific and technical sphere, but also fundamental aspects of morality, social justice, and respect for the individual. The widespread penetration of digital technologies into everyday life is creating new opportunities, but at the same time, it is provoking many ethical challenges. Issues related to the protection of privacy, ensuring equal access to technology, preventing digital discrimination, and maintaining social stability are becoming central to philosophical discussions in the 21st century.

Digital ethics is an interdisciplinary field that seeks to integrate moral and humanistic values into the process of creating, implementing, and using technology. It combines philosophy, law, sociology, computer science, and other disciplines, offering a comprehensive approach to solving emerging problems. The introduction of new technologies, such as artificial intelligence, automation systems, and the Internet of Things, raises ethical dilemmas that require critical

analysis by the expert community. For example, algorithmic bias, privacy violations, and increasing dependence on digital platforms are just some of the issues that require urgent attention [3, p. 68].

It is impossible not to note the ambivalence of the impact of digitalization on the global community. On the one hand, technology contributes to the democratization of information, simplifies access to knowledge, and accelerates economic and technological development. On the other hand, it exacerbates social inequality, threatens the right to privacy, and creates new forms of social manipulation. In these circumstances, a philosophical understanding of digital ethics becomes particularly important, allowing for the formation of adequate regulatory mechanisms.

It is also worth considering that technology, as a product of human activity, shapes new mechanisms of interaction between individuals, states, and corporations, creating both new opportunities and risks. For example, "the emerging trend toward monopolization of digital infrastructure by transnational corporations has the potential to undermine democratic principles and exacerbate digital inequality. Ethical standards, in turn, become a necessary tool for preventing the negative consequences of such developments" [4, p. 47].

This study aims to systematize key issues in digital ethics and find solutions that can ensure harmony between technological development and fundamental humanistic values. The main focus is on issues of responsibility, social justice, data privacy, and the need to create universal ethical standards that take into account both national political and cultural characteristics and global challenges of the modern world. The aim of the research is to study key issues of digital ethics in the context of rapid technological progress, as well as to develop approaches aimed at harmonizing the relationship between innovative technologies and humanistic values. The study aims to identify potential threats associated with the development of digital technologies and to find solutions to prevent them, including ethical regulation and the introduction of universal standards.

Materials and Methods. The work was carried out using both general scientific and specific scientific methods. The application of the dialectical method made it possible to analyze the interrelationships between the social, technological, and ethical aspects of the development of the digital society. The content analysis method made it possible to study normative legal acts, international agreements, and doctrinal sources in the field of digital policy. Legal comparative methods were also used, which made it possible to compare the approaches of different countries to solving problems of digital ethics.

The systematic approach ensured a comprehensive study of issues related to the impact of technology on social institutions and cultural values. A structural-functional approach was used to identify the interrelationships between the main threats in the field of digitalization and measures to prevent them. Logical methods and analytical techniques helped to clarify the content of the concepts of "digital ethics", "global security", and "data privacy." The synthesis of the data obtained made it possible to present digital ethics not only as a tool for regulating technologies, but also as an important element in preserving social values and forming a fair and equal digital society.

Results. The successful development of digital ethics is impossible without a multifaceted approach that includes the formation of public consensus, the adaptation of current legal norms, and active intervention by the state as the guarantor of ethics. The development of technology must be accompanied by adherence to basic humanistic principles, such as equality, respect for the individual and their rights, and the protection of society's interests. The era of digitalization has radically transformed all spheres of human life, including established moral norms, social values, and basic ethical principles. In the context of rapid technological progress, philosophical analysis of digital ethics issues is not only important but necessary for the preservation of rights, freedoms, and human identity. Digital technologies are shaping a new reality, changing perceptions of dignity, social justice, and personal responsibility. They are not only transforming the ways in which individuals interact with each other, but also raising complex ethical questions related to the use of artificial intelligence, automated systems, and the Internet of Things.

Although technology provides the highest level of convenience and efficiency, it also poses risks, including threats to data privacy, digital inequality, misinformation, and social manipulation. All these issues make the development of digital ethics one of the most important priorities for science, politics, and the public. For example, the use of artificial intelligence already raises questions about responsibility for algorithmic errors, the consequences of data bias, and the need for transparency in the development of automated systems [9].

In turn, digital ethics seeks to prevent negative consequences from the use of new technologies, including protecting user data, ensuring their rights to privacy and equal opportunities. At the same time, issues such as limiting algorithmic discrimination, ensuring equal access to digital resources, and forming new criteria for social justice are becoming central to philosophical discussions.

A philosophical approach to digital ethics allows us to structure and analyze how technology affects the global community [2, pp. 194–202]. For example, in the medical industry, where artificial intelligence and genetic engineering technologies are being actively implemented, there is a need for ethical regulation of the use of patient data, minimization of risks of inequality in access to new technologies, and determination of the limits of permissible intervention in the human body.

In addition, technology continues to amplify both the potential for democratization and the risks of social destabilization [8]. For example, expanded access to information can have a positive impact on the realization of human rights, while social media algorithms can exacerbate the isolation and discrimination of individual users. A philosophical understanding of such processes helps to better understand what the goals of digital regulation should be.

The basis for a successful response to the challenges of the digital age should be the introduction of educational programs aimed at raising awareness of digital threats, strengthening the responsibility of users and technology developers, and shaping new generations that are ready to make philosophically sound decisions in an environment of growing dependence on technology.

Continuing our reflection on digital ethics and its role in the modern world, it is worth noting that philosophical consideration of these issues allows us to think not only about current challenges, but also about the long-term consequences of technology implementation. One of the key threats associated with digitalization is the deepening of social and economic inequalities. Technologies that are created with good intentions may distribute benefits unevenly among different segments of society, leading to further polarization and social injustice.

For example, automation of production linked to artificial intelligence promises significant productivity gains, but it also threatens millions of jobs, especially in low-skilled sectors. This process requires the creation of strategies for retraining workers, adapting education systems, and developing new models of social protection. In short, targeted ethical reflection is needed to avoid the mass marginalization of certain population groups.

An equally important aspect of digital ethics is the issue of confidentiality and the right to privacy. Modern technologies such as social networks, facial recognition systems, the Internet of Things, and data collection applications create complex dilemmas. On the one hand, they provide convenience and new ways of interacting, but on the other, they threaten fundamental human rights such as freedom and personal autonomy [1]. The collection, storage, and use of citizens' data need to be strictly regulated and transparent to avoid abuse. Principles of digital ethics, such as "privacy by default" and "data minimization", should form the basis of future technological solutions.

Ethical issues related to the development of artificial intelligence and autonomous systems are also an important aspect of the discussion. In addition to the problems of transparency and explainability of decisions made by artificial intelligence, the question of responsibility arises. Who is responsible for the actions of AI: developers, technology owners, or end users? How can we ensure that the algorithms that control these systems are not biased and do not reinforce existing social discrimination? Answers to these questions require an interdisciplinary approach that includes philosophy, law, sociology, computer science, and other fields.

Another important issue in digital ethics is the interaction between technology and the moral and cultural traditions of different peoples. The globalization of digital platforms leads to a clash of values, and decisions that seem acceptable in one culture may cause outrage in another. For example, neural networks that use personal data for advertising purposes may be accepted in countries with low levels of privacy protection, but in countries with strong traditions of protecting individual rights, they provoke serious resistance. The importance of cultural sensitivity must be at the heart of the development of global digital standards.

With this in mind, there is a need to develop an international framework for digital ethics that takes into account the interests of both individuals and states in an increasingly complex world. The monopolization of technology by large corporations is already raising questions about digital inequality, access to knowledge, and the ability to control one's own data [7].

In the long term, digital ethics could play a key role in human evolution. Technology should be viewed not only as a tool, but also as a means for self-discovery, moral improvement, and the expansion of human potential. However, to achieve this goal, the development and use of new technologies must be accompanied by the conscious and systematic implementation of ethical principles. Only then will digital progress become a driving force rather than a destroyer of humanism. The success of digital ethics will depend on humanity's ability to recognize its responsibility for the future in a timely manner and to actively engage in the process of ethical regulation of digital technologies. This will require not only philosophical depth, but also practical actions aimed at balancing innovation and the value of human life.

Discussion and Conclusion. The process of establishing basic ethical standards also requires collective participation: from governments, research institutes, businesses, and civil society. Open discussion, exchange of experience, and the introduction of civil control systems will create conditions for the fair distribution of the benefits of digitalization, minimize its negative consequences, and ensure harmonious interaction between technological progress and social values.

Since access to digital products and services is becoming a standard for a decent quality of life, although not yet officially recognized, the Digital Quality of Life Index (DQLI) is of interest from the perspective of digital determinism. The top nine positions in the 2023 DQLI ranking are occupied by European countries. France tops the ranking (in 2023, it ranks first in terms of internet accessibility, fifth in terms of internet quality, and is among the top 20 in the areas of electronic infrastructure, security, and public administration). The average index for the 121 countries surveyed worldwide is 0.4864. Russia ranks 53rd in this ranking. Compared to 2022, its position has deteriorated by 11 points. The main

factor behind the decline is the internet accessibility sub-index: the country has moved from the top 10 to 69th place. For 2023: 40th place in internet quality, 46th place in electronic infrastructure, 56th place in security, and 47th place in e-government. For 2023: 40th place in terms of internet quality, 46th place in terms of electronic infrastructure, 56th place in terms of security, and 47th place in terms of e-government. The index for Russia and China could have been higher, as data on citizens' digital rights, which is unavailable, was not included in the calculation. "The correlation analysis of the data showed a strong positive correlation between the quality-of-life index and internet accessibility (correlation coefficient = 0.81) and an even stronger correlation with broadband internet accessibility (correlation coefficient = 0.85). Internet accessibility is the basis for the development of digital processes, and therefore digitalization can be considered a determinant of quality of life, raising it to a new, higher-level worthy of a modern member of a developed society" [11, p. 1030].

Philosophical reflection on issues of digital ethics not only clarifies the dangers of digital transformation, but also provides an opportunity to develop ways to overcome them. This gives humanity a chance not only to prevent potential threats, but also to use technology to achieve creative and sustainable goals that will help build a just society of the future [6, p. 76].

Digital ethics is not just a theoretical aspect of philosophy, but a practical necessity that helps society adapt fairly and responsibly to the challenges of a high-tech world [10, p. 5]. Only through the development of interdisciplinary cooperation, the creation of effective legal and ethical norms, and the education of future generations can harmony between technological progress and social well-being be achieved.

"The following practical initiatives can be proposed to improve the mechanism for implementing digital governance. These proposals are aimed at improving interaction between government agencies and civil society, as well as increasing the efficiency and transparency of management processes" [5].

First, online platforms should be introduced to encourage active voting and citizen participation in decision-making. Such platforms can be used to conduct surveys, referendums, and discussions on current issues, allowing citizens to directly influence the political agenda. It is important to ensure accessibility and an intuitive interface that takes into account the needs of different population groups, including people with disabilities.

Secondly, integrating artificial intelligence (AI) technologies to analyze public opinion and identify priorities in social policy can contribute to more tactful and informed decision-making. The use of AI can also include the automation of data collection and analysis on citizens' needs, which serves as the basis for building policies that are focused on the real demands of the population.

Thirdly, feedback mechanisms need to be created that allow citizens not only to express their opinions, but also to track how their proposals have been taken into account in the decision-making process. This could include special reports from government agencies on how exactly the public initiative was implemented or rejected, with justification for the decision.

We also consider it necessary to develop educational programs for citizens aimed at teaching the basics of working with digital tools. This will increase the level of digital literacy among the population, which in turn will increase their involvement in governance processes. Training courses can be organized both offline and online, including the creation of accessible video tutorials and webinars.

Another area of focus is active cooperation between government agencies, NGOs, and academia to implement pilot projects on digitalization. This will not only allow new approaches to be tested, but also enable the exchange of best practices and the creation of a support network that will facilitate the more effective implementation of digital solutions.

Special attention should also be paid to issues of ethics and data security. The development of strict norms and standards relating to the protection of citizens' personal information will become a necessity in the context of increasing digitalization. The creation of independent bodies to monitor data use can ensure that citizens' rights are always protected and that technology is not used to the detriment of privacy and freedoms.

Summarizing the results of the study, we can conclude that in an era of rapidly advancing technological progress, digital ethics is becoming an integral part of the socio-philosophical understanding of modernity. It is a key tool for overcoming the challenges associated with global digitalization, including issues of privacy, free will, fair access to technology, and the protection of human values. A philosophical approach to this phenomenon opens up prospects for harmonizing the interaction between humans and technology, allowing us to define the limits of their permissible impact on social and individual aspects of life. Thus, digital ethics is not only an ethical regulator, but also an important mechanism for shaping a responsible technological future. The significance of this direction lies in its ability to prevent possible negative development scenarios and ensure the sustainable coexistence of innovation and humanistic values.

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About the Authors:

Alekseeva Marina Vladimirovna, Cand. Sci. (Law), Associate Professor, Head of the Theory and History of the State and Law Department, Don State Technical University (1, Gagarin Sq., Rostov-on-Don, 344003, Russian Federation), Associate Professor of the State Legal Disciplines Department, Rostov Branch of Russian Customs Academy (20, Budennovskii Ave., Rostov-on-Don, 344002, Russian Federation), ORCID, SPIN-code, alekseeva80@yandex.ru

Rokotyanskaya Anna Anatolievna, Lecturer at the Theory and History of State and Law Department, Don State Technical University (1, Gagarin Sq., Rostov-on-Don, 344003, Russian Federation), ORCID, SPIN-code, kondratoanna@yandex.ru

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Об авторах:

Алексеева Марина Владимировна, кандидат юридических наук, доцент, заведующая кафедрой «Теория и история государства и права», Донской государственный технический университет (344003, Российская Федерация, Ростов-на-Дону, пл. Гагарина, 1); доцент кафедры «Государственно-правовые дисциплины», Ростовский филиал Российской таможенной академии (344002, Российская Федерация, г. Ростов-на-Дону, пр-т Буденновский, 20), ORCID, SPIN-код, alekseeva80@yandex.ru

Рокотянская Анна Анатольевна, преподаватель кафедры «Теория и история государства и права», Донской государственный технический университет (344003, Российская Федерация, Ростов-на-Дону, пл. Гагарина, 1), ORCID, SPIN-код, kondratoanna@yandex.ru

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