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Philosophical discourse of information ethics of the future

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Abstract: Aims: The purpose of the study is a philosophical analysis of the information ethics of the future features in order to find ways of use and quality improvement of the information space. For this purpose, it is necessary to carry out an analysis of the conceptual vision of information ethics in the latest philosophical and other studies. Characteristics of the main peculiarities of information ethics as a philosophical and sociocultural phenomenon are defined. Ways of strengthening information ethics in the information space are described. Forecasting of trends in the development of information ethics for the next decade has been carried out. Methodology: The main methodology of research is empirical, particularly, analytical. In order to highlight aspects of the research problem, scientific methods of induction, deduction, generalisation, abstraction, synthesis and modelling were used. Results: Philosophical analysis of information ethics made it possible to make a forecast of the ethical development of humanity in the context of further globalisation and virtualisation of the cultural space. Ethical egoism carries the main resources for humanity's choice in favour of ethics. Scientific Novelty: Consideration of the characteristics of ethical ethics, which is at the "point of bifurcation" due to the annihilation of humanity, made it possible to outline the paths of its future progress. These paths are: awareness of the advantages of ethics; popularisation of positive ethical scenarios; creation of ethical codes of information communities; development of ethics of artificial intelligence; integration of traditional ethics and the needs of the information age. Conclusions: Pragmatism, utilitarianism and ethical egoism will become the main trends in the use of certain ethical scenarios. This will not lead to the degradation of humanity only if the quality of self-interests is raised to the stage when the public good is perceived as part of the personal one.

Keywords: information ethics, polysociety, ethical scenario, ethical egoism, artificial intelligence, artificial neural networks.

Introduction

One of the most sincere definitions of society of the future, which is often used in philosophical, cultural, sociological discourse, is "informational". Unheard of for industrial and even early postindustrial society, the availability of information (thanks to open borders, computerization, equal access to education, etc.) allowed humanity to fully experience the potential of this phenomenon. Information can rightly be understood as a socio-cultural phenomenon due to the fact that it cannot be reduced only to meaningful concepts that are transmitted in the process of communication. At the same time, it carries certain cultural codes that influence the quality of society's existence, determining its thinking and behavior; serves as an implement for guiding of people's thinking.

The paradox of information lies primarily in the fact that, depending on the content, it equally carries within itself a resource for self-development and an anti-resource for the degradation of the individual. The potential of information can be powerfully destructive if it contains an anti-human content and uses methods of enhancing the perception of destructive content by the perceivers.

It is hardly possible to limit and even control the power of the information flow at the time of the availability of the Internet and the development of social networks. The idea of controlling the content of information in the era of free speech is also more utopian than realistic. Therefore, the only effective way of ensuring the constructive content and functionality of the information flow is the development of information ethics in a multicultural space.

Research Problem

The main problem of the research is the philosophical phenomenality of information ethics, its role in shaping the thinking of the global human community. Attention is also payed to the sociocultural and psychological aspect of information ethics in connection with its philosophical rethinking.

Research Focus

The research is focused on the ways and methods of using the potential and development of information ethics as the main guarantee of the survival of the society of the future.

Research Aim and Research Questions

The purpose of the study is a philosophical analysis of the features of the information ethics of the future in order to find ways to use it to improve the quality of the information space.

Achieving the aim of the research involves considering a number of questions, such as:

1. Analysis of the conceptual vision of information ethics in the latest philosophical and other studies.

2. Characteristics of the main peculiarities of information ethics as a philosophical and sociocultural phenomenon.

3. Disclosure and substantiation of the potential of information ethics in the harmonization of the information space of a polysociety.

4. Description of ways of strengthening information ethics in the information space.

5. Forecasting trends in the development of information ethics in the coming decade.

Literature Review/Theoretical Overview

Not a single type of communication can be realized without information content. This spectrum of study of information ethics covers a whole range of issues from theological (Collins, 2023) to applied, related to various spheres of human activity (Aghadiuno & Oryila, 2023; Böhm et al., 2022; Harris Agisilaou & Harris, 2022; Komorowski, 2023).

In an in-depth philosophical discourse, information ethics can be considered as a mandatory element of any quality interaction in the society of the future. According to the opinion of Dr Brian Ball of New College of the Humanities (NCH), *"information ethics" is concerned with various permissions and obligations that we might have around the dissemination and use of information"* (21st Century Philosophy: An Introduction to Information Ethics, 2021).

Korobko (2021) considers ethics as an important element of the regulation of the modern society. McArdle et al. (2023) see the ethics of the future as an effective tool for overcoming social inequality. Jacobson & Garlic (2023) define it as a fundamental factor in changing social communication and behaviour change communication.

This type of ethics is connected with the use of information and computer technologies. According to the official UNESCO website, IE consists of ethical, legal and societal aspects of using information and modern communication technologies (Information Ethics, UNESCO, 2019). Universal Declaration of Human Rights, among the other things, is the source of the principles of ethics of the future.

Studies of IE in the first, broad, context cover its implementation in various spheres of interaction. Babina (2021) emphasizes the ethical aspect of human transformation in the modern cultural space. She opposes the ethical approach to such areas of "human improvement" based on such values as the cult of the ideal body, the cult of youth, the cult of beauty, and the superpowers of the human body. Solis (2022) proposes a theory of complex-information ethics. Its main idea is that moral agents should perpetuate and enhance net positive deep informational artifacts and processes. Hansson (2022) noticed that information ethics in future lies in three dimensions: ethics of technology, ethics of risk and healthcare ethics.

Villagran et al. (2022) analysed the multicultural perspective of the development of information ethics in the future. Polycultural and national aspects occupy a significant place in modern studies of information ethics. As an example, we can cite a publication by Lee & Chung (2023), which is devoted to the Korean and international research trends and issues on the counselling supervision ethics, from 1980 to June 2022. Johnston (2022) has captured a wealth of practical material challenging codified ethics as unethical in ECEC in Ontario.

Poulsen & Christensen (2023), Murad et al. (2023) emphasize the connection of information ethics with meta-ethics, although in the classical sense they are often opposed. From our point of view, this is correct, because in the era of multiculturalism and pluralism of opinions, ethics and morality are gradually ceasing to be synonymous, when this does not completely deny their relationship.

At the same time, the classical vision of the relationship between information ethics and morality is still quite relevant. Nelson et al. (2022) present information ethics in close connection with empathy and equity. The comparative analysis of information ethical norms in various professional groups also remains relevant (Chan et al., 2022; Yueh et al., 2022). Considerable attention is also paid to how much information ethics has changed in the era of COVID-19 and how this may affect the society of the future (Lor et al., 2021).

A separate area of study of information ethics is the ethical aspect of innovation (Böhm et al., 2022; Steinhoff, 2023). The modern concept of ethical idealism, capable of "humanizing" the scientific and technical process, is gradually being formed and developed. In particular, Casas-Roma (2022) lays out a manifesto for it. A rather positive trend is the integration of the study of classical ethics, for example, Aristotelian, with the ethical trends of the modern information society, as we see in the study by Koehn (2023). Also, some issues of modern IE are considered from the standpoint of Kantianism (Denkov, 2023).

We can note the integration of knowledge from various disciplines in the study of new aspects of information ethics. Tilley (2022) studies the phenomenon of ethical egoism, which, from his point of view, differs from psychological egoism, because ethical selfishness involves choosing the best option from a moral point of view.

The problems of open science, protection of personal data, copyright are in the focus of attention of researchers (Aghadiuno & Oryila, 2023; Esa et al., 2023; Guan et al., 2023; Maddox et al., 2023; Schöpfel et al., 2022). Wenqing (2022) connects the future of science as a whole with the development of information ethics.

In this regard, an active review of the meaning of ethical codes, as well as the possibility of their application in the conditions of the modern information society, is being carried out (Hayes, 2023). The very foundations of IE are also being reassessed (Keiser, 2019).

A narrower sense of information ethics, connected with the using of modern information computer technologies, EAI (Ethics in Artificial Intelligence), is the most fully and accurately revealed in the scientific literature. In this context, "Is ethics evaporating in the cyber era?" by Ronchi (2022) in two parts is worthy of mention. Also, in many studies, the issues of information ethics in the use of different computer technologies are revealed.

Table 1

Scientific works on the application of information ethics in the context of the use of modern computer technologies

Researcher	Field of Research	Conceptual Vision of Information Ethics
Baharuddin et al. (2022)	PAPA Framework	Information ethics in various fields is based on dimension of the PAPA (Privacy, Accuracy, Property, and Accessibility). The versatility of the application is provided by the hybrid structure of the four- component model.
Bietti (2021)	Tech Ethics	Ethics means self-regulatory efforts and shallow appearances of ethical behavior.
Boddington (2023)	Artificial Intelligence	Information ethics of artificial intelligence can be considered in the context of consequentialism, focusing on the results of actions; deontology; ethics of virtue. At the same time, it is important to focus on the agent's moral character.
Carvalho et al. (2023)	Games and Entertainment Computing	Information ethics is not reduced only to the analysis of "good" or "bad", it is about elaborating, analyzing, evaluating, and reflecting on complex and compound ethical dilemmas.
Cox (2022)	Artificial Intelligence	Ethics of the Artificial Intelligence is characterized as an informational and semantic functionality of an industrial robot complex which resembles an ethical scenario as much as possible.
Génova et al. (2023)	Artificial Intelligence	Three fundamental ethical problems with any implementation of machine ethics can be identified: human being; human intentional acting; intentional actions and their consequences (morally evaluated).
Han (2022)	ICT Platforms, Artificial Intelligence	AI ethics is able to partially satisfy the need for cultural and social sustainability. Concepts and concepts related to information and communication technologies, cyber ethics, artificial intelligence and robots are ambiguous. The ethics of artificial intelligence is based on ethical scenarios set by programmable softbots and AI agents.
Herwix et al. (2022)	Information Systems	Ethics is as an integral part of the researcher's information systems (IS). In the society of the future, it will develop in five main perspectives: Design and Technology Ethics, IS Practice, Philosophy, Science, Panelists'.
Johnson et al. (2023)	Artificial Intelligence	The problem of information ethics of artificial intelligence can be considered in the context of Virtue Ethics, Deontology and Consequentialism. There are nine principles regarding how ethics should be approached in AI: fairness and non-discrimination, privacy, safety and security, human control of technology, transparency and explainability, accountability, promotion of human values, professional responsibility, and sustainable development.

Mirbabaie et al. (2022)	Information Systems, Artificial Intelligence	There is a conflict between AI and ethics. It consists in the fact that the technology is being given nearly full autonomy. Normative ethics aim to protect the rights of individuals, including data and autonomy. AI technologies are applied to many different use cases. That's why it is difficult for organizations, researchers, and policymakers to draw up ethical guidelines.
Waelen (2023)	Computer Vision	Computer vision tools allow a system or device to automatically respond to Interpret and analyze images and videos. Therefore, the ethics of computer vision is a separate and important section of Artificial Intelligence. The expansion of bioethics into AI suggested by the AI4People framework, they end up focusing on three issues—human rights, error rates, and bias.

Source: author's analysis and generalization

As the analysis of the latest scientific studies showed, the topic of information ethics is popular, but understudied in both the broad and narrow sense. Too many questions (for example, ethics of computer vision, a conflict between AI and ethics, ensuring of cultural and social sustainability with the help of information ethics, etc.) remain undisclosed. That's why philosophical analysis of the features of the information ethics stays relevant both for philosophical science and for related disciplines.

Research Methodology

General Background

The main methodology is empirical, in particular, analytical. We analyzed in detail the essence of information ethics, its characteristic features, directions, ways and trends of its development. In order to highlight certain aspects of the research problem, scientific methods of induction, deduction, generalization, and abstraction were used. The synthesis method made it possible to combine individual trends in the study of information ethics into two main concepts: the interaction of human-human and the ethical contact of a person with artificial intelligence.

We used modeling to represent the relationship between information ethics and the benefits it provides in light of the concept of ethical selfishness. Thanks to the systematic method of research, it was possible to analyze information ethics in the philosophical and sociocultural discourse, partly in the psychological one.

Research Results

Information ethics is a complex multi-component philosophical phenomenon. It consists of five main groups of components: access, ownership, privacy/confidentiality, security and community (Keiser, 2019). Since the development of the information society proceeds at a much faster pace than the post-industrial one, information ethics is also dynamically changing.

Modern ethics faces significant challenges of the information society. Among them are:

1. *Globalisation of communities* that blurs cultural boundaries. The possibilities of communication on the Internet gradually become available even in the most remote corners of the planet. A large number of people with different ethnicities, ages, genders, etc. can be present on the same web resource. A kind of multicultural, multyethical community is emerging, for the definition of which we prefer to use the term "polysociety", or "polycommunity". And the development of any unified ethical standard suitable for such a community can become a real problem in both the philosophical and practical sense.

2. Total virtualisation of communication. This factor of influence is naturally determined by the previous one, globalisation. Researchers have paid a lot of attention to it in connection with the change in social communications due to the COVID-19 pandemic (Lor, 2021). The tendency of virtual communication to compete with the real one was observed much earlier, but self-isolation increased it many times. Communication in social networks, messengers, and thematic web resources now not only competes with face-to-face communication, it supplants it. Any ethical scenario can be realised only in the process of interaction between two subjects possessing consciousness and free will. In the situation of widespread virtualisation, information ethics becomes almost the only way of existence of ethics as a socio-cultural phenomenon in modern society.

3. *Hihilisation of humanity*. The COVID-19 pandemic experienced by polycommunity, economic problems, military conflicts, and many other negative factors led not only to rethinking, but also, unfortunately, to the loss of ethical values. Traditional ethics, which are based on theological postulates from certain religions and worldview beliefs of various religious denominations, have lost their relevance for many people. And still no comprehensive answer has been found to the question of which ethnic scenarios are really effective, able to satisfy the needs of humanity, which has repeatedly rejected traditional values (the Renaissance, the years of atheism, the so-called sexual revolution, etc.).

4. The conflict between ethics and of modern times cults. On the one hand, the cults of power, success, consumer realisation, etc. are drivers of human progress and stimulate it to constant self-development. But without an ethical component, the other side of these phenomena is destructive both for an individual and for the human community as a whole. Babina (2021) correctly defines the role of information ethics as a factor that should balance the influence of these cults. But it cannot be confidently asserted that at the current stage of development, information ethics is able to cope with the extremely difficult task of resolving this conflict, rather, on the contrary.

5. The ambiguity of the ultimate goal of the development of information ethics. The analysis of the historical path of the formation and development of ethics as a philosophical and sociocultural phenomenon shows that its purpose has always been in the field of theology and moral philosophy. Ethics are not followed for the sake of ethics: there is always the ultimate goal of the "global good", which takes different forms depending on the beliefs (from the Kingdom of God to the communist "heaven on Earth"). How "global good" will look like in the future (informational) society and whether such a philosophical concept is viable in these conditions in general, is a complex and debatable question. Researchers do not have a clear answer to this question today.

Globalisation of society and increasing closeness, individualisation, and virtualisation of people's lives all over the world are essentially opposite, but complementary processes. They equally influence the formation of a new type of information ethics in the society of the future. Globalisation significantly reduces the influence on the scenarios of the ethics of the religious and confessional, national, gender and other values of the poly-community of traditional societies. In the ethical sense, globalisation is always aimed at tolerance, equality and mutual respect of representatives of different cultures and beliefs. But the philosophical problem of this is that not all cultures, worldviews are inherently ethical and humane. And it is difficult to determine whether tolerance for everything will lead not to the observance of ethical norms, but to the negation of all ethics. This phenomenon is especially well traced in the example of bioethical discussions.

Analysing the problems of globalisation of bioethics, Bhakuni (2022) gives the examples of: western ideals of individualism and self-reliance which have little purchase in the Filipino culture; ethical principles of western countries require all adults to be the primary decision makers of their participation, which may not be applicable in the Indian system, etc. If it is accepted as an axiom that

the information ethics of the future must be based on globalisation and tolerance, then any opposing opinion must be accepted with respect, because it is part of the worldview of the other person, his self-awareness.

But a difficult question arises whether the perceiver will then be ethical in relation to himself, because in this way he creatively betrays his own moral convictions. What is more important: public adherence to the norms of politically tolerant information ethics or honesty with oneself, adherence to one's own right to profess any beliefs that do not violate the norms of the law, which a particular person is obliged to comply with. It is hardly possible to unequivocally answer this question, but the search for a balance between public tolerant information ethics and internal self-ethics is clearly necessary. And this, from our point of view, is the next challenge for information ethics in the society of the future.

Globalisation is balanced by the process of individualisation of ethical norms and scenarios in the era of multiculturalism. In this regard, it is appropriate to pay attention to the study of the phenomenon of ethical egoism, highlighted by Tilley (2022). Both in modern psychology and in philosophy the term "egoism" has long had a neutral meaning, without negative connotations. Of course, egoism can acquire pathological norms, developing into egocentrism. But the selfishness of a developed and relatively psychologically healthy person plays an important role in protecting his personal boundaries and preserving resources.

The information ethics of the future differs significantly from traditional ethics in the motivation to comply with ethical postulates. A few epochs earlier, the negative motivation of ethics was mainly to avoid punishment (higher powers, authorities, public censure), and the positive motivation consisted in the conscious achievement of the "common good", as it looked in the moral and ethical ideals of the individual. The society of the future is more pragmatic and less realistic. Fewer people are afraid of the wrath of the gods or the punishment of the community, in order to avoid which one must be ethical. But an increasing number of conscious individuals, thanks to their education and general access to information, understand what consequences unethical behaviour can lead to.

Society lives in an era, when the information war is approaching the degree of destructiveness to real combat action. In the future, with the development of artificial intelligence and new ways of information and psychological impact, this effect may increase many times over.

Elmasi (2022) rightly remarks: information wars mean not only cyber-attacks, but also the use of information as a weapon. Information polarises societies of provoke conflicts. Every war needs social support and the way to do this is to provide reasons to legitimise wars.

Information warfare differs from other types of warfare in that it does not even require you to travel anywhere to participate in hostilities. Everyone can find themselves in its epicentre as a victim or an aggressor, just by going to a resource on the Internet, a social network or a messenger. And compliance with information ethics, along with other security measures, in many cases saves the psyche and even lives of people.

Returning to the problem of the possibility of the existence of the concept of "global good" in the information society, let us emphasise its connection with self-preservation. Globalisation has led to the fact that a conscious user of information and communication technologies is in the information epicentre of not only local, but also global disasters.

For example, those who have not felt the physical consequences of the military actions in Ukraine are still affected by them through economic and territorial restrictions, sanctions, the psychological pressure of propaganda, and so on. The information impact of environmental, natural, man-made disasters on humanity included in the virtual space is quite strong. Compliance with information ethics and self-ethics in this context is an important part of psychological hygiene, a resource for selfpreservation.

In the information society, with an attention to human rights and freedoms, unprecedented for previous eras, the positive motivation of information ethics will dominate. So one can fully agree with Hansson (2022), affirming that "moral philosophy has much more to offer". Of course, it is hardly possible to fully identify information ethics as a complex philosophical phenomenon with moral philosophy. But the secular nature of modern society, and even more so its improved version in the information future, clearly indicates a weakening of the theological component of the content of this ethics (of course, we are not talking about a complete loss of relevance here). This means that the component of moral philosophy, and in the most pragmatic form, should be strengthened.

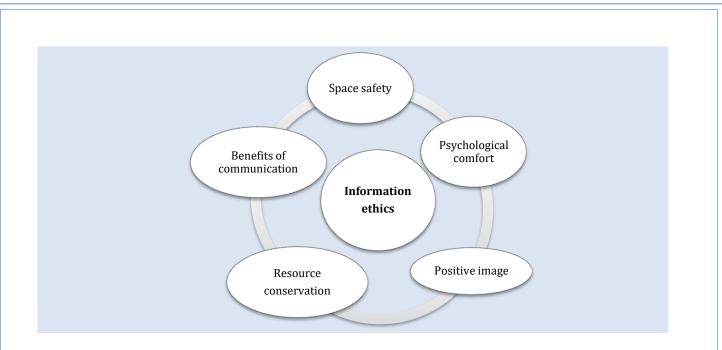
As Tilley (2022) writes, that ethical egoism is the view that if an act is morally right, this is only because it maximises the agent's self-interest. Based on this consideration, mainly ethics is the *quality of self-interest*. It can differ depending on the level of personality development, culture, upbringing, character, motivation, goals and many other characteristics. The high quality of self-development makes it possible to trace a clear connection between the common and personal good, which follows from the very social nature of people. And the belief that it is beneficial to be ethical can ensure that the individual follows more positive ethical scenarios.

The basis of sound ethical egoism is the priority of subjectivity. Everything that a person does, he does first of all for himself. Even conscious tolerance for society is nothing more than loyalty to one's belonging to somebody else. The examples of high-quality self-interests in the context of information ethics might include:

- respecting one's own privacy and the privacy of others to create a secure information space for all;
- avoidance of participation in information conflicts to preserve personal resources;
- personal control of communication quality the network in accordance with the own ideals to achieve inner psychological comfort;
- choosing ethical ways of interacting with people to get the maximum benefit from information communication;
- ethical use of web resources and all the functionality of the Internet to create a positive image of the person in own eyes and for others (Figure 1).

Figure 1

Correlation of ethical behaviour and personal benefits according to the concept of ethical selfishness



Source: author's own development

The information ethics of the future is characterised by the fact that it is not limited to the interaction "human \leftrightarrow human". Ethical problems are also relevant for the interaction model "human \leftrightarrow artificial intelligence".

Many modern researchers have focused on the information ethics of artificial intelligence (Cox, 2022; Génova et al., 2023; Mirbabaie et al., 2022; Schöpfel et al., 2022), some of them explore the ethical aspects of ai functionality, such as computer vision (Waelen, 2023). The analysis of the ethics of artificial intelligence, as well as all information ethics, is traditionally carried out in two planes. The first relates to the behaviour of people who create artificial intelligence, and is mainly focused on their corporate values. The second concerns directly artificial moral agents created in the process of robotisation.

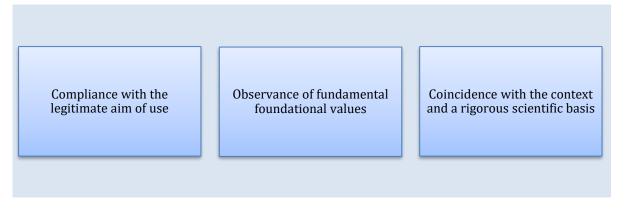
Due to the humanisation of AI, the models of traditional ethics and ethics of artificial intelligence, which are characterized as conflicting by Mirbabaie et al. (2022), gradually converge and unify. *"Robot rights"* – actively promoted movement possessing animal and human rights, although criticised by many analysts. There are quite serious discussions about whether a person should be ethical towards a robot endowed with intelligence in the same way as he behaves, for example, with another rational person. De Graaf et al. (2021) note than moral debate about robot rights is usually framed in terms of moral patience. They are meant to prevent others from wronging robots (De Graaf et al., 2021).

But if the rights of robots as intelligent beings are still met with considerable scepticism, the training of artificial intelligence in ethical norms is recognised as necessary by most of the human community. This issue is directly related to the safety of the use of artificial intelligence, the control of its activities. That's why the 193 Member States at UNESCO's General Conference adopted the Recommendation on the Ethics of Artificial Intelligence in November 2021. This document became an instrument of protection and promotion human rights and human dignity. It must be like *"ethical guiding compass and global normative bedrock allowing to build strong respect for the rule of law in the digital world"* (Recommendation on the Ethics of Artificial Intelligence, UNESCO, 2022).

According to the Recommendation on the Ethics of Artificial Intelligence by UNESCO, no human being or community should be subordinated and harmed anyway: physically, economically, socially, politically, culturally or mentally, during any phase of the life cycle of AI systems. This document also defines the basic ethical requirements of any AI technology (Figure 2).

Figure 2

Basic ethical requirements of any AI technology



Source: author's interpretation

This approach actually equates the observance of ethical norms by a living person with the functionality of artificial intelligence. Artificial neural networks can significantly help with this. According to Bhargava (2019), they are "emotionless and effective pattern finders". ANN drive towards the perfection of their performance on any given task. If the artificial neural networks of the future learn to determine ethical patterns and scenarios, the implementation of the tasks set forth in the Recommendation on the Ethics of Artificial Intelligence will be quite possible.

From our point of view, the role of artificial neural networks in the development of future information ethics is no less important than the role of ethicists. Because they are much faster than human researchers, can study the ethical challenges of a polysociety in the shortest possible time, as well as analyse large amounts of information in search of ways to respond to these challenges. The quality of solving ethical conflicts with artificial intelligence remains controversial.

Bhargava (2019) connects the ethical and philosophical component of artificial neural networks with utilitarianism. As in the classical conception of utilitarianism, in the future society the morality of an ethical postulate will most likely be determined by its practical utility. But there is an open philosophical question of utility as such and by what criteria it will be determined by artificial intelligence. In the ethical sense, good was never reduced just to the performance of certain functions, even moral ones.

The category of utility in ethics was more likely to be associated with the development of humans as an individual and a part of society, and not with obtaining momentary benefits. In order for an artificial neural network or other artificial intelligence technology to be able to correctly identify a situation and choose an ethical scenario, it must operate with the correct hierarchy of ethical values. This structure is much more complex than the generalised list of human rights presented in the Recommendation on the Ethics of Artificial Intelligence.

It can be predicted that the ethical scenarios of the future society, especially those perceived by artificial intelligence and neural networks, will be more flexible than those accepted in traditional ethics. The very principle of using ethical scenarios may change. In evaluating a situation or phenomenon from an ethical point of view, not a rigid postulate will prevail, but the resourcefulness and usefulness of the situation.

Ethics and morality will be less often used as tools of condemnation and manipulation (at least because the influence of a specific community with a strict ethical code in a polycommunity inevitably

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weakens). But the effectiveness of choosing ethics as a conscious strategy for survival and selfdevelopment will increase. Because the negative counter-scenario of such a choice (the partial or complete rejection of information ethics), can gradually lead to the self-destruction of humanity.

Discussion

The debate surrounding information ethics over the past decade is primarily concerned with its foundations. The source of any ethical concept is always the moral philosophy of the culture in which it originates and functions (mostly theological). But the problem is that modern polysociety is mostly secular (atheistic or agnostic), multicultural. Even in those parts of the world where traditional cultures are still strong enough, the impact of secularisation is felt. And the question arises, what will be the meaning of new effective ethical patterns of behaviour.

Modern scientists oppose each other as to which philosophical trend will have the greatest influence on the content of ethics in the future. Bhargava (2019) is sure that this is utilitarianism; Tilley (2022) considers it as the leading concept of ethical egoism. Casas-Roma (2022), on the contrary, proposes to apply the concept of ethical idealism to information ethics. The concept of ethical idealism is that the most important thing is the prosperity of the users through the way they use the technology. The momentary benefits of information technology, from the point of view of ethical idealists, are secondary.

It should be noted that the years of development of an integrated approach in philosophy significantly influenced the course of the discussion between idealists and utilitarians. Today, they are not so much antagonists as they consider various aspects of information ethics in order to reach a consensus about it. It is rather difficult to determine how relevant traditional ethical values will be in a few decades, given the enormous pace of development of the information society. From our point of view, humanity is in the ethical "bifurcation point" at the same moment of development. This means that it can both reject these guidelines and revive them.

One of the most debatable issues of information ethics of the future, from our point of view, is the understanding of the value of the "common good" in it, which is associated with the nihilization of humanity. Ronchi (2022) argues that ethical concepts such as privacy, freedom of expression, possession of personal data, become ephemeral in cyberspace. He attributes this to the inexorably growing number of digital "objects" that are always on and connected online.

From our point of view, the influence of mass character cannot be denied, of course, but a much greater threat to cybersecurity is the lack of understanding by the participants of network interaction of the significance, essence and advantages of ethics. As long as ethics is perceived as obsolete, rigid, and, most importantly, not very viable morality in a secular modern society, the situation is unlikely to change.

As Babina (2021) noted, the concept of a cult is still strong in the ethical perception of the surrounding reality. But these are mostly utilitarian cults (perfection, success, wealth, fulfilment, etc.), and not ethical ones, as in the past, pre-secular eras. Therefore, it can be discussed, what the secular information ethics of the future is.

Recommendation on the Ethics of Artificial Intelligence by UNESCO (2022) formulated the basic principles for the compliance of the functionality of information technologies of the future with human rights and other basic ethical standards. But how to embody these principles in the ethical patterns of information interaction correctly is a rather difficult task.

Considering two equivalent vectors for the development of information ethics of the humanity of the future ("human \leftrightarrow human" and "human \leftrightarrow artificial intelligence"), it is possible to start a meaningful discussion, how these models of information ethics relate. As artificial moral agents are made more and more like sentient humans by design efforts, the robot rights movement, which is deeply analysed by De Graaf et al. (2021), will intensify in the near future. It is quite possible that soon moral robots will be considered as the same subjects of ethical relationships as people and animals.

A wide field for discussion is opened up by the practical possibilities of using certain ethical concepts and scenarios in the functionality of computer technologies. In this regard, the problems of developing a hierarchy of ethical norms and values for artificial intelligence should be noted.

It is important to discuss the connection between the concepts of information ethics of the future and traditional and modern philosophical concepts. Since only the integration of ethics with the experience of mankind, accumulated in these worldview systems, makes it viable and effective.

Conclusions and Implications

The study demonstrated that the development of information ethics of the future would significantly differ from previous eras. Pragmatism, utilitarianism and ethical egoism will become the main trends in the use of certain ethical scenarios. This will not lead to the degradation of humanity only if the quality of self-interests is raised to the stage when the public good is perceived as part of the personal one. Even contemporary ethical idealism is likely to move closer to a utilitarian vision of prioritising the good.

Among the main ways of strengthening information ethics in the information space are:

1. Awareness of the advantages of ethics and the natural consequences of unethics (information catastrophe and self-destruction of humanity) by the majority.

2. Popularisation of positive ethical scenarios with an emphasis on substantiating their practical personal benefits.

3. Creation of up-to-date ethical codes of information communities, first of all, professional ones.

4. Development of information ethics of artificial intelligence using the functionality of artificial neural networks.

5. Integration of the achievements of traditional ethics (especially in matters of moral philosophy) and the needs of the information age.

A sceptical attitude towards traditional moral values often prevents people from seeing the full potential of ethics. This is partly due to the fact that ethics is perceived as a kind of system of prohibitions and coercion. But the information ethics of the future is considered in the above context of the tool to create a secure information space, to preserve personal resources, to achieve inner psychological comfort, to get the maximum benefit from information communication and to create a positive image of the person in own eyes and for others. And in such a vision, information ethics acquires practical value for a modern rational person.

If earlier questions of ethics concerned interaction between people, then today and in the future the issue of ethics of artificial intelligence will become more and more relevant. It is possible that the "robot rights" movement will become more influential in society as artificial moral agents become more humanised. It is unlikely that it will be possible in the near future to equate their rights to an ethical attitude to the human supporters of the designated movement. But significant steps towards this are already possible.

The globalisation of opinions, multiculturalism and tolerance, in our opinion, will lead to the fact that an increasing number of behavioural scenarios will be recognised as ethical. And this phenomenon can be assessed ambiguously. On the one hand, the ethics of the future will not be rigid in postulates and repel by this, causing a desire to try the "forbidden fruit". On the other hand, vague evaluation criteria can gradually level the concept of ethics in general.

Contrary to many popular beliefs, the information ethics of the future is not considered to be the antagonist of the traditional. Rather, it will be an adaptation of the accumulated ethical experience of humanity to a new, virtualised, reality of being.

References

- 21st Century Philosophy: An Introduction to Information Ethics. (2021, May 10). On *Research Outreach*. https://researchoutreach.org/articles/21st-century-philosophy-introduction-informationethics/
- Aghadiuno, Ph. Ch. & Oryila, S. Sh. (2023). Information Ethics, Publishing and Plagiarism among
Academics.*LibraryPhilosophy*and*Practice*,7558.https://digitalcommons.unl.edu/libphilprac/7558
- Anggraini, F., Karsa, Y., & Siswanto, F. (2023). E-Business Ethics Learning Effectiveness to Build Ethical Awareness, Moral Courage, and Ethical Decisions. *International Journal of Social Science and Education Research Studies*, 03, 553–559. https://doi.org/10.55677/ijssers/V03I4Y2023-03
- Babina, S. (2021). Human Transformation in the Modern Cultural Space: Ethical-Axiological Aspect. *The Bulletin of Yaroslav Mudryi National Law University, series: Philosophy, Philosophies of Law, Political Science, Sociology, 4*, 96–107. https://doi.org/10.21564/2663-5704.51.242005
- Baharuddin, K., Mustafa, A'D., Abdullah, S., & Abdullahi, Kh. (2022). Understanding Information Ethics Practice through the PAPA Framework. *Environment-Behaviour Proceedings Journal*, 7, 67–72. https://doi.org/10.21834/ebpj.v7iSI10.4103
- Bhakuni, H. (2022). Glocalization of Bioethics. *Global Bioethics*, *33*, 65–77. https://doi.org/10.1080/11287462.2022.2052603
- Bhargava, A. Ethics of Artificial Neural Networks. (2019, October 20). *Aman Bhargava*. https://aman-bhargava.com/2019/10/20/ethics-of-artificial-neural-networks/
- Bietti, E. (2021). From Ethics Washing to Ethics Bashing: A Moral Philosophy View on Tech Ethics. *Journal of Social Computing*, 2, 266–283. https://doi.org/10.23919/JSC.2021.0031
- Boddington, P. (2023). Normative Ethical Theory and AI Ethics. In *AI Ethics. Artificial Intelligence: Foundations, Theory, and Algorithms* (pp. 229–276). Springer, Singapore. https://doi.org/10.1007/978-981-19-9382-4_6
- Böhm, S., Carrington, M., Cornelius, N., Bruin, B., Greenwood, M., Hassan, L., Jain, T., Karam, Ch., Kourula, A., Romani, L., Riaz, S., & Shaw, D. (2022). Ethics at the Centre of Global and Local Challenges: Thoughts on the Future of Business Ethics. *Journal of Business Ethics*, 180, 835–861. https://doi.org/10.1007/s10551-022-05239-2

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- Bourban, M. & Rochel, J. (2021). Synergies in Innovation: Lessons Learnt from Innovation Ethics for Responsible Innovation. *Philosophy & Technology*, 34, 373–394. https://doi.org/10.1007/s13347-020-00392-w
- Brandt, M. B. (2018). Ethical Aspects in the Organization of Legislative Information. *Knowledge Organization*, 45, 3–12. https://doi.org/10.5771/0943-7444-2018-l-3
- Carvalho, L. P., Santoro, F., Oliveira, J., & da Costa, R. (2023). Ethics and Games, Ethical Games and Ethics in Game. In R. Pereira dos Santos & M. da Silva Hounsell (Eds.). *Grand Research Challenges in Games and Entertainment Computing in Brazil* (pp. 134–158). GranDGamesBR 2020–2030. https://doi.org/10.1007/978-3-031-27639-2_7
- Casas-Roma, J. (2022). Ethical Idealism, Technology and Practice: a Manifesto. *Philosophy & Technology,* 35, 86. https://doi.org/10.1007/s13347-022-00575-7
- Chan, M., Daniels, J., Furger, S., Rasmussen Pennington, D., Shoemaker, E., & Snow, K. (2022). The Development and Future of the Cataloguing Code of Ethics. *Cataloging & Classification Quarterly*, 60, 1–21. https://doi.org/10.1080/01639374.2022.2134247
- Collins, A. (2023). Ethics in Paul and Paul in Ethics. *Journal of Biblical Literature*, 142, 6–21. https://doi.org/10.15699/jbl.1421.2023.1b
- Cox, A. M. (2022). The Ethics of AI for Information Professionals: Eight Scenarios. *Journal of the Australian Library and Information Association*, *71*, 1–14. https://doi.org/10.1080/24750158.2022.2084885
- De Graaf, M., Hindriks, F., & Hindriks K. (2021). Who Wants to Grant Robots Rights?. *Ethics in Robotics and Artificial Intelligence*, 8, 781985. https://doi.org/10.3389/frobt.2021.781985
- Denkov, D. (2023). Animal-human-machine. Immediate Context of "Answering the Question: What is
Enlightenment?".SHSWebofConferences,161,07001.https://doi.org/10.1051/shsconf/202316107001
- Elmasi, N. (2022). Information Wars and Peace. *Social Science Development Journal*, 7, 71–82. https://doi.org/10.31567/ssd.614
- Esa, M., Othman, I., Mokhtar, S., Ationg, R., & Ibrahim, M. (2023). Diagnosis of the Meaning of Ethics and Civilization: a Review. *International Journal of Law, Government and Communication*, 8, 61–75. https://doi.org/10.35631/IJLGC.831005
- Génova, G., Moreno, V., & Martín, M. (2023). Machine Ethics: Do Androids Dream of Being Good People?. *Science and Engineering Ethics*, *29*, 10. https://doi.org/10.1007/s11948-023-00433-5
- Guan, X., Feng, X., & Islam, A. Y. M. A. (2023). The Dilemma and Countermeasures of Educational Data Ethics in the Age of Intelligence. *Humanities and Social Sciences Communications*, *10*, 1–14. https://doi.org/10.1057/s41599-023-01633-x
- Han, J. (2022). An Information Ethics Framework Based on ICT Platforms. *Information*, *13*, 440. https://doi.org/10.3390/info13090440
- Hansson, S. O. (2022). Moral Philosophy Has Much More to Offer. *Risk Analysis*, *43*, 238–239. https://doi.org/10.1111/risa.13918

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- Harris Agisilaou, V. & Harris, H. (2022). Learning to be Ethical: the Role of Ethical Capability in Community Development Education. *Community Development Journal*, 58, 154–172. https://doi.org/10.1093/cdj/bsac041
- Hayes, A. (2023, March 28). Code of Ethics: Understanding Its Types, Uses through Examples. *Investopedia*. https://www.investopedia.com/terms/c/code-of-ethics.asp
- Herwix, A., Haj-Bolouri, A., Rossi, M., Tremblay, M., Purao, S., & Gregor, Sh. (2022). Ethics in Information Systems and Design Science Research: Five Perspectives. *Communications of the Association for Information Systems*, 50, 34. https://doi.org/10.17705/1CAIS.05028

Information Ethics (2019, March 27). UNESCO. https://en.unesco.org/themes/information-ethics

- Jacobson, T. & Garlic, N. (2023, March 28). Ethics Principles for Social and Behavior Change communication. *International Communication Gazette*. https://journals.sagepub.com/doi/10.1177/17480485231165479
- Johnson, E., Parrilla, E., & Burg, A. (2023). Ethics of Artificial Intelligence in Society. *American Journal of Undergraduate Research*, *19*, 3–12. https://doi.org/10.33697/ajur.2023.070
- Johnston, L. (2022). Node-ified Ethics: Contesting Codified Ethics as Unethical in ECEC in Ontario. *In education*, *28*, 80–101. https://doi.org/10.37119/ojs2022.v28i1b.648
- Keiser, B. (2019) Foundations of Information Ethics. *Journal of Electronic Resources in Medical Libraries*, 16(2), 96–98. https://doi.org/10.1080/15424065.2019.1638871
- Koehn, D. (2023). Narrative Business Ethics Versus Narratives Within Business Ethics: Problems and Possibilities from an Aristotelian Virtue Ethics Perspective. *Journal of Business Ethics*, 1–17. https://doi.org/10.1007/s10551-023-05399-9
- Komorowski, J. (2023). Ethical Considerations in Solving Economic Problems. *Journal of Management and Financial Sciences*, 46, 33–49. https://doi.org/10.33119/JMFS.2022.46.3
- Korobko, M. (2021). Information Ethics as a Necessary Element of the Regulation of the Modern Information Society. *Ukrainian Cultural Studies*, *8*(1), 46–50. https://doi.org/10.17721/UCS.2021.1(8).10
- Lee, J. & Chung, M. (2023). Korean & International Research Trends and Issues on the Counseling Supervision Ethics: From 1980 to June 2022. *Korean Association for Learner-Centered Curriculum* and Instruction, 23, 521–542. https://doi.org/10.22251/jlcci.2023.23.6.521
- Lor, P., Wiles, B., & Britz, J. (2021). Re-thinking Information Ethics: Truth, Conspiracy Theories, and Librarians in the COVID-19 Era. *Libri-International Journal of Libraries and Information Studies*, 71(1), 1–14. https://doi.org/10.1515/libri-2020-0158
- Maddox, R., Drummond, A., Martinez, S., Waa, A., Nez Henderson, P., Clark, H., Upton, P., Lee, J., Hardy, B.-J., Tautolo, E.-Sh., Bradbrook, Sh., Tom, C., & Whop, L. (2023, February 13). Ethical Publishing in "Indigenous" Contexts. *Tobacco Control.* https://tobaccocontrol.bmj.com/content/early/2023/02/10/tc-2022-057702
- McArdle, H., Barlott, T., McBryde, C., Shevellar, L., & Branjerdporn, N. (2023). Navigating Ethical Tensions When Working to Address Social Inequities. *The American Journal of Occupational Therapy:*

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Official Publication of the American Occupational Therapy Association, 77(1), 7701205160. https://doi.org/10.5014/ajot.2023.050071

- Mirbabaie, M., Brendel, A., & Hofeditz, L. (2022). Ethics and AI in Information Systems Research. *Communications of the Association for Information Systems*, 50, 38. https://doi.org/10.17705/1CAIS.05034
- Murad, K., Alhatimi A., N., & Makanai, S. (2023). The Media Ethics and Legislation in the Modern Digital Environment. *Information Sciences Letters*, *12*, 1863–1873. https://doi.org/10.18576/isl/120411
- Nelson, T., Goodchild, M., & Wright, D. (2022). Accelerating Ethics, Empathy, and Equity in Geographic Information Science. *Proceedings of the National Academy of Sciences*, 119, 19. https://doi.org/10.1073/pnas.2119967119
- Poulsen, A., & Christensen, A.-M. (2023). The Invention and Re-invention of Meta-ethics. *The Journal of Value Inquiry*, 1–18. https://doi.org/10.1007/s10790-023-09935-8
- Recommendation on the Ethics of Artificial Intelligence (2022). UNESCO. https://unesdoc.unesco.org/ark:/48223/pf0000381137
- Ronchi, A. M. (2022, November 30). Is Ethics Evaporating in the Cyber Era?: Part 2 : Feeling Framed. TheInternationalReviewofInformationEthics,32(1).https://informationethics.ca/index.php/irie/article/view/495
- Ronchi, A. M. (2022, November 30). Is Ethics Evaporating in the Cyber Era?: Part 1 : Setting the Scene.TheInternationalReviewofInformationEthics,32(1).https://informationethics.ca/index.php/irie/article/view/494
- Schöpfel, J., Azeroual, O., & Castro, P. (2022). Research Information Systems and Ethics Relating to Open Science. *Procedia Computer Science*, *211*, 36–46. https://doi.org/10.1016/j.procs.2022.10.174
- Solis, K. (2022). Complex-Information Ethics Theory. *Journal of Big History*, *5*, 92–108. https://doi.org/10.22339/jbh.v5i1.5150
- Steinhoff, J. (2023). AI Ethics as Subordinated Innovation Network. *MediArXiv Preprints.* https://mediarxiv.org/qsxj3/
- Tilley, J. (2022). On Deducing Ethical Egoism from Psychological Egoism. *Theoria*, *89*(1), 14–30. https://doi.org/10.1111/theo.12440
- Villagran, M., Madali, N., Green, A., & Hawamdeh, S. (2022). Information Ethics from a Multicultural Perspective: Content Analysis of Selected Library and Information Science Publications. *Journal of Education for Library and Information Science*, 64, 37–52. https://doi.org/10.3138/jelis-2021-0056
- Waelen, R. (2023, March 20). The Ethics of Computer Vision: an Overview in Terms of Power. *AI and Ethics.* https://link.springer.com/article/10.1007/s43681-023-00272-x
- Wenqing, W. (2022). On the Future of Science and Technology and Science Ethics. *World Journal of Advanced Research and Reviews*, *15*, 616–623. https://doi.org/10.30574/wjarr.2022.15.2.0861
- Yueh H.-P., Huang Ch.-Y., & Lin W. (2022, September 27). Examining the Differences between Information Professional Groups in Perceiving Information Ethics: an Analytic Hierarchy Process Study.

 Frontiers
 in

 Psychology.

 https://www.frontiersin.org/articles/10.3389/fpsyg.2022.954827/full