Artificial Intelligence Ethics: Anthropocentric Approach

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***Abstract*—This article focuses on analyzing the specifics of the anthropocentric approach to artificial intelligence (AI) ethics. This approach enables the classification of AI-interacting agents—developers, operators, and users—while also addressing the broader question of AI ethics' place within contemporary ethical discourse. AI developers are professionals who specialize in the design, training, maintenance, and other activities related to the creation and fine-tuning of AI systems. Operators use AI to solve professional problems unrelated to AI development. Users interact with AI to solve everyday, nonprofessional problems. For AI developers and operators, moral issues are regulated by the norms of professional ethics, while for AI users they are governed by the principles and norms of applied ethics. Within the framework of professional ethics, a professional community establishes norms for itself based on reflection on the moral dilemmas that arise in professional practice. In applied ethics, educational mechanisms and the practice of small deeds are more relevant than norm creation.**

Keywords—anthropocentrism, professional ethics, applied ethics, AI developer, AI operator, AI user

I. Introduction

The term "artificial intelligence" (AI) functions as an umbrella concept. Despite gaining normative recognition, AI remains a multifaceted concept. The metaphor of "artificial intelligence," used to describe technical systems capable of imitating human cognitive functions, contributes to the tendency to ascribe agency to AI. The anthropomorphization of AI has gained new impulse with the development of large language models and the enhancement of anthropomorphic robots. In this context the notion of "AI ethics" is perceived in several significant contexts: as a moral reflection on the peculiarities of human interaction with various types of AI, as a set of norms and rules, and even as behavioral expectations directed towards AI as a moral agent.

This situation fosters the reproduction in public consciousness of the "uncanny valley" effect, alarmist sentiments, and conspiracy theories that are actively discussed in public discourse. To mitigate such negative effects, methodological approaches to AI ethics that recognize moral agency exclusively for humans are employed. The term "human-centered approach" is often used to describe these approaches, but we argue that "anthropocentric approach" is a more precise term, at least in the context of AI ethics. The dilemma between anthropocentrism and nonanthropocentrism, widely discussed in ecological ethics, is also relevant for AI ethics. This perspective allows for analyzing both "subject-subject" and "object-object" moral relationships [1]. The opposition between anthropocentrism and nonanthropocentrism reveals an essential characteristic of AI ethics: stakeholders interacting with AI recognize the need for regulatory norms and rules, but in practice, they require concrete recommendations describing specific practices and regulatory mechanisms.

Applying an anthropocentric approach to AI ethics shifts the research focus towards differentiating subjects interacting with AI which and defining the place of AI ethics within the structure of ethical knowledge.

We propose to identify three groups of agents interacting with AI: developers (machine learning specialists, programmers, data analysts, AI trainers, etc.); operators (those who use AI to solve professional tasks: engineers in industry, scientists, medical professionals, etc.); and users (those who use AI outside professional activities). For developers and operators AI ethics is professional; for users it is applied. In professional ethics the agent of norm creation is the professional community itself. It possesses an appropriate level of expertise and understanding of the specific moral issues arising within the framework of professional activity.

A unified position on the relationship between applied and professional ethics and their place in the structure of ethical knowledge has not yet been developed in the Russian-language ethical discourse. For example, Perov [2] describes four possible variants of this relationship, ranging from their complete independence to forms of professional ethics that become the foundation of applied ethics. We proceed from the most common judgment in the professional ethical community according to which professional ethics is part of applied ethics, but they are not identical to each other. For example, see [3], [4].

For professionals, specific norms and rules are essential, as they enable the description of "...the exceptions (digressions) from general moral principles dictated by the logic of the profession and perceived in a specific professional context not as digressions but as adequate expressions of the spirit of these principles themselves." [5]. In contrast, applied ethics shifts the focus from professional obligations to broader moral considerations; instead of norms, practical moral

situations take center stage—situations whose resolution requires "...shifting moral values from an ideal form into practical form not only in individual experience but also in organizing social life…" [6]. However, most AI ethics codes are oriented towards finding universal bases for action which contradicts the nature of applied ethics. As a result, such documents fail to fulfill their purpose—to help individuals interacting with AI remain human and minimize their moral risks associated with both professional and other types of activities. The significance of general principles in AI ethics such as reliability, transparency, explainability, nonmaleficence, protection of confidentiality, and personal autonomy is indisputable. However, their abstract and declarative nature, nonbinding execution, and difficulties in external control lead to a public discourse on AI ethics that is rife with descriptions of almost identical problems and general recommendations.

We aim to break out of this vicious cycle by employing an anthropocentric approach. Developing recommendations for interacting with AI within this framework depends first on the agent interacting with AI; second on the specifics of the AI system; and third on the social domain in which the AI operates. The following sections explore the implications of this approach for developers, operators, and users.

II. Research Methodology

The research methodology is based on an anthropocentric approach, which allowed us to draw conclusions that fundamentally differ from both the technocentric and sociocentric paradigms of human-AI interaction. A systemic approach is necessary to define the relationship between applied and professional ethics within the system of ethical knowledge. The classification method was used to identify the types of agents interacting with AI and the corresponding of ethical regulation methods. Additionally, observation and discourse analysis methods were applied to study the norm-creating intentions of both professional and non-professional AI users, as well as AI devepolers, aimed at regulating human-machine interaction.

III. Ethical regulation of interactions between various actors and AI

A. AI Developers

AI developers encompass a broad range of professionals, including programmers, data analysts and annotators, testers, specialists in data science, robotics, and more. While clients commissioning AI projects are not developers per se, their requirements and specifications significantly influence key ethical considerations such as reliability and transparency.

The fundamental ethical principles for developers are responsibility and accountability.

Responsible interaction with AI is a universal principle for all stakeholders; however, the most stringent demands for responsible engagement with AI are directed at developers. The extent to which ethical principles and norms are integrated into the professional activities of developers not only influences the effectiveness of AI implementation in specific areas of life but also affects the overall level of trust in digital technologies and AI in particular.

The ethics of AI developers is a form of professional ethics. For ethical frameworks to be practically applicable, they must be sufficiently specific and concise. While the declaration of moral responsibility and accountability for a professional's actions and the transparency of the technology they create is undisputed, in situations involving moral dilemmas, such general principles and values are often ineffective. For instance, Microsoft's ethical guidelines express a commitment to responsible AI development and the minimization of potential harm during its use [7]. At the same time, according to journalistic investigations, Microsoft's AI technologies are used in armed conflicts, potentially contributing to harm [8]. Therefore, ethical principles must be reinforced by concrete norms, documented in professional codes of ethics, corporate policies, operational guidelines and standarts. This idea—from high-level ethical principles to specific norms and practices—is embedded, for example, in the IEEE's document Ethically Aligned Design [9].

Creating a professional code of ethics for AI developers is a task for the professional community itself. A survey of big data specialists revealed an ambivalent attitude towards such a code: "On one hand, it should not interfere with production processes by constantly distracting developers and their managers from pressing issues. On the other hand, when situations of moral uncertainty arise there should be some protocol or algorithm for resolving them that is applicable to current realities, even if not completely." [10]. We believe that a similar perception of ethical regulation constraints may also exist among AI developers due to the close connection between these technologies. Therefore, when constructing ethical codes for AI developers, it is crucial to consider their professional specialization and the specific problems encountered at different stages of development. For instance, programmers and testers may have different levels of responsibility and face distinct moral challenges because they work at different stages of the AI lifecycle. Additionally, the area or field for which the AI is being developed is important as well as the substantive specifics of the moral dilemmas that arise during their professional activities.

We can illustrate this point using the example of ethical regulation for AI developers in the medical field. For instance, the principle of nonmaleficence can be specified in norms that require developers to create AI systems where nonmaleficence is prioritized over benefit. If an AI system designed for melanoma detection is trained primarily on images of individuals with lighter skin tones, its accuracy for individuals with darker skin may be compromised [11]. This could lead to harm especially in situations where operators place excessive trust in the AI system [12].

B. AI Operators

Typically, an AI operator is understood to be a specialist who manages and configures AI systems. Their responsibilities include training and tuning the systems, monitoring performance, correcting errors, and ensuring the security of AI systems. Key areas of responsibility encompass providing transparency in the operation of AI systems for user understanding, accountability for the consequences of the system's actions, and compliance with laws and standards related to AI use including data protection and intellectual property regulations [13]. AI operators face several risks, including challenges in identifying algorithmic errors that result in incorrect decisions, data security breaches, hardware or software failures, and the complexities of AI system management [14].

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A typology of technological profiles for operators has been developed by a team led by David Romero, which includes: super-strength operator, augmented operator, virtual operator, healthy operator, collaborative operator, social operator, and analytical operator. The technological diversity within each profile and the sectoral variety reflects the rapid development of AI, robotics, advanced analytics, and autonomous systems, leading to ethical issues related to human-centered cyber-physical systems in production [15].

Given that trends in AI development manifest not only through sequential technological innovations but also through an expansion of application areas—including transportation, domestic services, healthcare, education, public safety, work, and employment—the definition of "AI operator" takes on a broader meaning. In a wide sense, an AI operator is anyone using AI for professional purposes.

The ethics of AI operators constitutes a form of professional ethics since it is regulated by professional organizations to ensure the quality of work outcomes and public trust in the professional community. When analyzing the activities of an AI operator, the principles of safety and security for beneficiaries of the operator's professional results come to the forefront.

This approach necessitates training professionals to become AI operators while adhering to relevant ethical standards. This presents a new challenge for university teachers who must possess high digital competencies, including proficiency in various AI tools and platforms. University teachers should provide students with an understanding of fundamental AI concepts, including machine learning (ML) and data analysis, enabling graduates to effectively apply this knowledge in their future professional activities [16]. Therefore, university teachers must take a leading role in teaching the ethical aspects of AI usage, guiding students to use technology mindfully and consider the social and ethical implications of their decisions. Given the automation and personalization of education, university teachers must be able to adapt their courses and programs according to new requirements and opportunities provided by AI while fostering a transformation in the thinking of future AI operators.

University teachers also function as AI operators, for instance, utilizing neural networks in their teaching and research activities. The professional use of AI in such contexts is regulated by policies established by universities, publishers, and individual academic journals. For example, see [17–18].

In their professional activities an AI operator must adhere to requirements for transparency, fairness, safety, accountability, confidentiality, and trust [19]. As AI systems become increasingly integrated into critical industrial operations, attention to transparency and explainability is expected to grow. Organizations deploying AI must establish clear protocols for addressing ethical challenges, error correction, and decision accountability [20].

Operators at any qualification level and in any format of interaction with AI require continuous improvement of their skills in technology use and moral dilemma resolution to build trusting relationships between humans and machines. This necessitates enhancing corporate and professional ethics codes by incorporating norms that regulate interactions with AI during professional tasks while fostering a culture that identifies critically vulnerable situations and develops strategies for addressing them.

C. AI Users

AI users encompass everyone who applies them in their daily lives. This raises several questions regarding the boundaries between casual and professional AI engagement. For instance, a student using a neural network to generate text for an academic assignment can be viewed both as a user and as a prospective AI operator.

Are rules for user interaction with AI necessary? Should these rules be generalized or detailed, addressing each specific area of user interaction with AI—such as virtual assistants, translators, autonomous vehicles, recommendation systems in retail, smart home devices, and more? Most users do not delve deeply into studying AI technologies but recognize their significance and impact on everyday life. In this context, two approaches exist for defining strategies for user interaction with AI: restriction-based and education-based. The first approach involves taboos against certain forms of interaction. For example, in the education sector various prohibitions on the use of large language models for specific purposes are proposed [21]. The second approach emphasizes educating and training users to explain what AI is, in which areas and for what purposes it is used, its advantages and risks, and the potential outcomes in the process of «domesticating» machines [22]. For younger generations the significance and necessity of AI are evident; however, older generations must overcome resistance and build a cognitive foundation that fosters the transformation of human-environment interaction. To address these challenges tools from applied ethics should be employed. Here, the agent of norm creation is society as a whole rather than groups of professionals.

In contrast to operators and developers, users are not constrained by anything other than personal norms and principles; however, they are limited by the accessibility of AI technologies. Moreover, most users do not always understand when they are using AI. Consequently, the analysis of ethical issues can proceed either within a deontological framework (should/should not) or through "the practice of small deeds" logic which determines the appropriateness and necessity of specific individual behavioral practices aimed at minimizing harm and maximizing benefits from AI use in each particular situation.

Users are often more inclined to anthropomorphize AI than professionals. A layperson seeks to "humanize" AI, define its place within their life framework, establish interaction practices, and delineate boundaries between acceptable and unacceptable behavior. For example, on the website turingtest.live participants engage in real-time conversations aiming to identify whether they are interacting with a human or a chatbot. The most participants were unable to determine this [23]. The challenge of emotionally perceiving "nonhuman" intelligence stimulates the development of new strategies for forming so-called "supportive practices", "prosthetic cultures" and models of productive cooperation between humans and technology [24]. In such conditions, taboos are impractical since it is difficult to prohibit what is hard to define and unpredictable. Conversely, it would be incorrect to remove all prohibitions and restrictions on user interaction with AI, as this would undermine responsible technology use.

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Thus, for AI users it is essential to propose not merely a set of ethical norms but rather a description of evolving practices for interacting with AI that promote technological development while creating a comfortable and stimulating environment for human growth—one that adheres to the principle of "the golden mean" and the logic of "small practices".

IV. Conclusions

For AI developers and operators, ethical norms must be specific enough to guide decision-making while allowing flexibility for professional judgment. Such norms can only be developed by professionals for professionals, particularly in the case of specialized or narrow AI, where optimal collaboration occurs between developers and clients who possess expert knowledge about the specific tasks for which the AI is being developed. However, when it comes to generative multitasking AI where identifying a client is challenging, collaboration between developers and AI operators is deemed optimal for norm creation.

For users, formal ethical codes may be ineffective given the diversity of AI applications. The rapid pace of new cases may render it impractical to update codes in response to each situation. Here, tools from applied ethics such as "White Papers" (compendiums of best practices for resolving contentious situations) and various ethical educational mechanisms can be beneficial.

AI ethics cannot be universal. The complexity of moral issues arising from human interaction with AI necessitates a shift from seeking universal ethical frameworks to addressing specific practical challenges and analyzing unique moral dilemmas. We need not only theory but also systematic practices. This middle path governed by the principle of «the golden mean» can help us avoid the extremes of idealistic yet impractical declarations in professional activities or everyday life as well as overly detailed instructions that reduce individuals from free moral agents to mechanical algorithms.

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