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Kyzymenko Iryna Oleksiivna
PhD in Historical Sciences, Associate Professor,
Associate Professor at the Department of Philosophy,
Sociology and Political Science
State University of Trade and Economics
19, Kyoto str., Kyiv, Ukraine
orcid.org/ 0000-0002-2148-9488

Husieva Nataliia Yuriivna
PhD in Historical Sciences, Associate Professor,
Associate Professor at the Department of Philosophy,
Sociology and Political Science
State University of Trade and Economics
19, Kyoto str., Kyiv, Ukraine
orcid.org/0000-0002-6062-6406

TRANSHUMANISM IN THE AGE OF ARTIFICIAL INTELLIGENCE: THE SOCIO-PHILOSOPHICAL DIMENSIONS OF THE DIGITAL SOCIETY

The relevance of the study*. The rapid advancement of artificial intelligence, biotechnology, and neural interfaces underscores the need for a socio-philosophical analysis of transhumanism as a philosophical movement that advocates the possibility and desirability of technologically enhancing human nature. As digital society takes shape, transhumanist ideas are moving beyond academic discourse to become a driving force behind real-world social transformations, raising fundamentally new questions about the nature of human agency, the boundaries between the natural and the artificial, and the future social order.* ***This article aims*** *to examine the socio-philosophical dimensions of transhumanism in the age of artificial intelligence through an analysis of the movement's key conceptual foundations, its interconnection with the processes of digitalisation, and a critical reflection on the associated risks and prospects.* ***The study's methodological framework*** *is based on its stated aim and research objectives and adopts an interdisciplinary approach drawing on social philosophy, technology ethics, the social sciences, and media studies. The study employs comparative-historical analysis, the phenomenological method, critical discourse analysis, and a systems approach to investigating the social consequences of technological development.* ***Research findings.*** *The intellectual origins of transhumanism have been traced, from FM-2030's futurist manifestos to contemporary concepts of the technological singularity and superintelligence. The analysis shows that digital society creates a distinct socio-technical environment in which transhumanist transformations assume concrete forms and give rise to new social tensions. Three key tensions within the transhumanist project have been identified: between individual freedom of self-improvement and its systemic social consequences; between techno-optimistic predictions and the real risks of humanity losing control over powerful technological systems; and between the pursuit of boundless self-improvement and the threat posed by the erosion of essential human qualities as the foundation of moral and legal equality. It is emphasised that a socio-philosophical understanding of transhumanism requires moving beyond the binary opposition between techno-optimism and technophobia in favour of a balanced, critical, and humanistically oriented approach that combines recognition of the genuine possibilities of technological progress with responsible consideration of its limits and risks.*

Key words: *transhumanism, artificial intelligence, digital society, technological singularity, posthumanism, superintelligence, networked society, infosphere, technology ethics, human enhancement.*

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The introduction. Humanity has always sought to transcend the limits of its own nature by overcoming disease, extending life, and enhancing the capacities of both mind and body. Today, however, for the first time in history, this age-old aspiration is supported by technologies capable of turning it into reality. Contemporary civilisation is undergoing an unprecedented technological transformation driven by rapid advances in artificial intelligence, biotechnology, nanotechnology, and neural interfaces. These technologies are already reshaping not only the ways people work and communicate but also human beings themselves, affecting their bodies, memories, emotional lives, and life expectancy. Against this background, transhumanism – a philosophical movement that advocates the possibility and desirability of enhancing human nature through technology – has acquired new social and epistemological significance. Emerging in the second half of the twentieth century through the works of thinkers such as FM-2030 and Nick Bostrom, transhumanism has evolved far beyond the boundaries of academic debate to become an integral part of technological culture and contemporary discussions about the future of humanity [1; 3].

Transhumanist ideas are particularly significant within the context of the emerging digital society, in which information and communication technologies permeate virtually every sphere of human activity and profoundly reshape social relations, identity, and subjectivity. Each new generation of digital technologies –from smartphones and facial recognition systems to wearable health-monitoring devices and neural interfaces – continues to blur the boundaries between humans and machines, the natural and the artificial. Recent advances in generative artificial intelligence, large language models, brain-computer interfaces, and synthetic biology further challenge conventional understandings of what distinguishes the human from the technological, the natural from the artificial, and the physical from the digital. These developments raise a fundamental question: where is the boundary beyond which an enhanced human ceases to be human, and does such a boundary exist at all? They also give rise to important socio-philosophical questions concerning the future of human subjectivity, the relationship between the natural and the artificial, and the broader consequences of technological human enhancement for societal development [2].

Importantly, these issues concern not a distant hypothetical future but technological transformations that are already taking place. Algorithms increasingly recommend doctors and life partners, neurostimulation technologies are used to treat depression, and CRISPR-based genome editing offers unprecedented possibilities for modifying human heredity. Technology is gradually evolving from a mere instrument into an integral component of human existence. This transformation calls for critical reflection not only from engineers and economists but, above all, from philosophers and scholars in the humanities. At the same time, it is essential to acknowledge the growing challenges associated with these developments, including unequal access to advanced technologies, the expansion of mass surveillance, the erosion of privacy, and the possibility that technological enhancement may become the privilege of only a limited segment of society.

The aim of this article is to examine the socio-philosophical dimensions of transhumanism in the age of artificial intelligence by analysing its principal conceptual foundations, its relationship to the processes of digitalisation, and the risks and opportunities associated with its development. To achieve this aim, **the study pursues the following objectives**: to reconstruct the historical and philosophical origins of transhumanism; to analyse the relationship between transhumanist thought and the development of digital society; to identify the major social tensions arising from technological human enhancement; and to examine the principal critical perspectives on the transhumanist project. Ultimately, the article seeks to address a question that concerns philosophers, sociologists, and all members of contemporary society alike: what do we want to become, and what should we become, in an increasingly technology-driven future?

Research methods. The socio-philosophical study of transhumanism requires an interdisciplinary methodological framework because the phenomenon extends beyond the scope of any single academic discipline. Transhumanism simultaneously constitutes a philosophical doctrine, a technological agenda, a cultural movement, and a social project. Accordingly, this study adopts an interdisciplinary approach that draws upon social philosophy, technology ethics, the social sciences, and media studies.

Such an approach makes it possible to analyse transhumanism in all its complexity while avoiding both excessive theoretical abstraction and an overly descriptive treatment of empirical developments.

The methodological framework consists of several complementary research strategies. Comparative-historical analysis is employed to trace the evolution of transhumanist ideas from their intellectual origins to contemporary debates and to demonstrate how early futuristic visions gradually developed into concrete technological programmes. The phenomenological method is used to investigate transformations of human subjectivity in the context of technological development, examining not only their social consequences but also the ways individuals experience changes in their bodies, identities, and perceptions of time. Critical discourse analysis is applied to the writings of leading proponents and critics of transhumanism in order to identify the underlying value assumptions, rhetorical strategies, and ideological tensions that shape contemporary debates about humanity's technological future. Finally, a systems approach enables transhumanist transformations to be understood as interconnected socio-technical processes that generate new forms of social organisation, inequality, and opportunity.

The theoretical foundation of this study is based on the works of scholars whose contributions collectively constitute the intellectual landscape of contemporary debates on the future of humanity. Particular attention is devoted to the pioneers of transhumanist thought, including FM-2030 (Fereydoun M. Esfandiary), whose futurist manifestos profoundly influenced early transhumanist thinking, and Max More, who provided transhumanism with philosophical coherence and conceptual clarity. Among contemporary scholars, Nick Bostrom occupies a central position owing to his systematic reconstruction of the intellectual tradition of transhumanism and his introduction of the concept of existential risk, which has become one of the most influential contributions to contemporary technology ethics [3]. Ray Kurzweil has enriched the discussion through detailed technological forecasts concerning the convergence of humans and machines, many of which appear increasingly plausible in light of recent technological developments [4]. Yuval Noah Harari has contributed a broader historical and cultural perspective by interpreting transhumanism as perhaps the most radical stage in humanity's long pursuit of overcoming biological limitations [5].

Alongside transhumanist theorists, this study also draws upon the foundational works of scholars of the information and network society, whose research explains the social environment within which transhumanist ideas acquire practical significance. Manuel Castells analyses the internal dynamics of the network society in which transhumanist practices emerge and evolve [6], while Jan van Dijk examines digital inequality and the power relations embedded within networked social structures [7]. Integrating these two intellectual traditions – transhumanist philosophy and the sociology of digital society – makes it possible to move beyond both uncritical techno-optimism and simplistic technophobia. Instead, it provides the basis for a balanced socio-philosophical analysis that recognises both the transformative potential of emerging technologies and the ethical, social, and political challenges they inevitably create.

Research findings. *The genesis of transhumanism: from utopia to a technological programme.* Humans have always been dissatisfied with themselves, and it is precisely this dissatisfaction that has driven historical progress. From ancient myths about the immortality of the gods and alchemical quests for the elixir of life to Enlightenment utopias and the positivist belief in the omnipotence of science, the desire to transcend human nature appears as one of the deepest impulses of human culture. Transhumanism as an organised intellectual movement took shape in the second half of the twentieth century; however, its ideological roots reach back to the Enlightenment, with its conviction that reason and progress can liberate humankind from suffering, ignorance, and death. The novelty of transhumanism does not lie in the aspiration to self-improvement itself, but in the fact that, for the first time in history, this aspiration is supported by concrete technological means capable of realising it.

One of the pioneers of transhumanist thought is FM-2030 (born Fereydoun M. Esfandiari), an Iranian-American futurist, athlete, and diplomat whose life story resembles a science fiction narrative. Having rejected his surname as a protest against inherited identity and adopted a name reflecting the year in which he hoped to still be alive, FM-2030 embodied the transhumanist project not only intellectually but also biographically. In his trilogy *Optimism One* (1970), *Up-Wingers: A Futurist*

Manifesto (1973), and *Telespheres* (1977), he outlined the basic contours of a post-human future in which biological limitations are overcome and individuals freely construct their identities and bodies [8, 9, 10]. In his best-known work, *Are You a Transhuman?* (1989), FM-2030 proposed practical criteria for identifying transhumans – individuals who consciously pursue self-enhancement through technology, ranging from the everyday use of medical innovations to a radical willingness to transform human nature itself [1, p. 11]. This text is not merely a philosophical manifesto but also an invitational gesture addressed to the reader: are you a transhuman?

The academic formulation of transhumanism is closely associated with Nick Bostrom, an Oxford philosopher who accomplished the rare feat of transforming futuristic reflection into a rigorous academic discourse. In *A History of Transhumanist Thought* (2005), he systematically examined the intellectual traditions underpinning the movement, tracing its connections to Enlightenment rationalism, scientific humanism, and technological optimism [3, p. 6]. Equally significant is Bostrom's articulation of the core values of transhumanism: the reduction of unnecessary suffering, the extension of healthy lifespan – potentially indefinitely – the enhancement of cognitive and physical capacities, and the expansion of individual freedom regarding one's own body and mind [11, p. 4]. Importantly, these values are not external to the humanist tradition; rather, they can be seen as its radical extension. Whereas classical humanism defended dignity and autonomy within the limits of human nature, transhumanism seeks to extend these very values beyond those limits.

Among theorists who have further developed transhumanist discourse, Max More and Natasha Vita-More occupy a prominent place. Max More defines transhumanism as a «class of life philosophies» aimed at improving the human condition through the application and dissemination of science and technology [12, p. 4]. This formulation is significant because it emphasises plurality: transhumanism is not a single doctrine but an open intellectual field characterised by internal diversity and debate. Natasha Vita-More, in turn, advances the concept of a «regenerative paradigm», envisioning a future in which technology not only extends life but also qualitatively enriches it by enabling new forms of experience, creativity, and self-expression [13, p. 364]. Francesca Ferrando introduces an important conceptual distinction between transhumanism and posthumanism: while the former remains largely within the humanist framework and focuses on technological enhancement of humanity, the latter undertakes a more radical critique of the very category of the «human», questioning anthropocentric value hierarchies [14, p. 11]. This distinction is crucial for understanding the plurality of positions within debates on the future of humanity.

The genealogy of transhumanist ideas cannot be fully understood without reference to two major intellectual traditions that underpin it. The first is cybernetics, developed by Norbert Wiener, who in his seminal work Cybernetics (1948) proposed analysing humans and machines through the shared principles of control and feedback [15, p. 7]. This conceptual move – the idea of the human as a system that can be optimised and reconfigured – became one of the cornerstones of transhumanist thinking. The second tradition is media theory, particularly Marshall McLuhan's notion that every technology is an «extension» of the human being: the wheel extends the foot, the microphone the voice, and the computer the mind [16, p. 8]. If this logic is accepted, then the difference between glasses and neural implants, or between a book and mind uploading, becomes one of degree rather than kind. This conception of the human as a technologically mediated and continuously extensible subject has become one of the theoretical foundations of transhumanism, while also remaining one of its most contested and debated assumptions among both proponents and critics of technological human enhancement.

The Singularity and Artificial Intelligence in Transhumanist Discourse. Imagine the moment when a machine first surpasses the human mind – not in a single game or task, but across all domains traditionally regarded as uniquely human: creativity, intuition, scientific discovery, and emotional intelligence. No one can predict with certainty what will follow. It is precisely this uncertainty – simultaneously fascinating and alarming – that lies at the core of the concept of the technological singularity, a central idea in contemporary transhumanist discourse. The singularity is not merely a technological event; it is a horizon beyond which familiar categories of human thought cease to apply and the future becomes fundamentally unpredictable.

Ray Kurzweil, an engineer, inventor, and arguably the most prominent populariser of technological futurism, has devoted much of his intellectual career to mapping this horizon. As early as 1999, when the internet was still widely perceived as a novelty, he predicted that machines would surpass human intelligence and usher in a new era of human – and post-human – civilisation [17, p. 6]. In *The Singularity Is Near* (2005), Kurzweil described the singularity as the moment when artificial intelligence surpasses the collective human intellect, triggering an exponential acceleration of technological change that would radically transform the nature of human existence [4, p. 15]. It is noteworthy that Kurzweil's predictions, which in the early 2000s seemed speculative, are now taken far more seriously: the emergence of systems such as GPT-4, AlphaFold, and advanced image-generation models has forced even sceptics to revise their expectations regarding the pace of technological development. In his more recent book *The Singularity Is Nearer* (2024), Kurzweil reaffirms and refines his thesis, arguing that the merger of humans and artificial intelligence is likely to occur within the coming decades and will represent not the end of humanity, but its next stage of flourishing [18, p. 12].

However, where Kurzweil sees an inspiring future, other thinkers perceive serious grounds for concern and equally rigorous philosophical scrutiny. In *Superintelligence: Paths, Dangers, Strategies* (2014), Nick Bostrom introduced the concept of «superintelligence» into academic discourse – an artificial intelligence that significantly exceeds human cognitive abilities across virtually all relevant domains. After systematically analysing possible scenarios for its emergence, Bostrom arrives at a sobering conclusion: even AI systems pursuing seemingly benign goals may pose an existential risk to humanity if their objectives are not properly aligned with human values [19, p. 23]. In *Human Compatible* (2019), Stuart Russell develops this argument constructively, proposing the idea of «human-compatible» AI systems designed from the outset to remain aligned with human values while retaining adaptability and corrigibility [20, p. 21]. Russell argues that the AI control problem is not merely technical but fundamentally philosophical, requiring a deeper understanding of what human values are and how they can be meaningfully formalised. In *Life 3.0,* Max Tegmark offers one of the most systematic explorations of possible futures shaped by superintelligent AI – from scenarios of unprecedented prosperity to those of totalitarian control – emphasising that the outcome depends not on technology itself, but on choices made in the present [21, p. 26].

While Bostrom, Russell, and Tegmark approach the issue from the perspective of AI ethics and technical governance, Yuval Noah Harari offers a historical and cultural-anthropological lens, which makes his analysis particularly provocative. In *Homo Deus* (2015), he examines the pursuit of immortality, happiness, and «god-like» capabilities as the new grand projects of the twenty-first century, replacing the traditional struggle against hunger, disease, and war, and raises the unsettling question of whether humanity may lose itself in the process of striving for divinity [5, p. 26]. Harari does not offer definitive answers; instead, he exposes contradictions and tensions. In *21 Lessons for the 21st Century* (2018), he translates this analysis into practical concerns, emphasising the need for new educational models and social institutions capable of preserving human agency, critical thinking, and psychological resilience under conditions of rapid technological transformation [22, p. 35]. For Harari, the central risk is not that machines will become more intelligent than humans, but that humans may lose the ability to understand themselves and their desires, becoming increasingly governed by algorithms that know them better than they know themselves.

These global debates also resonate within Ukrainian academic thought. O. Kivliuk and O. Goncharova analyse transhumanism through an original conceptual framework, interpreting it as the idea of «immanent physical immortality» and as the basis for a fundamentally new temporal paradigm [23, p. 269]. If death has traditionally functioned as the horizon that gives human existence structure, meaning, and urgency, then the prospect of radically extended or unlimited longevity fundamentally reconfigures human understandings of time, mortality, and continuity – and, consequently, the organisation of both personal and social life [23, p. 271]. This perspective serves as a reminder that the question of the singularity and artificial intelligence is not only technological but also existential: it concerns what it means to be human in time, and whether humanity is prepared to relinquish its temporal finitude in exchange for the promise of immortality.

The digital society as an environment for transhumanist transformations. Transhumanist transformations do not take place in a vacuum, nor in a laboratory isolated from the wider world. They are unfolding here and now – in the everyday lives of millions of people who wear smartwatches that monitor their heart rate, interact with algorithms that know their preferences better than their closest friends, and rely on AI systems to select music, suggest partners, and even support medical diagnoses. The environment in which the transhumanist project is emerging and being realised is digital society, and without an understanding of its nature, logic, and contradictions, any discussion of technological enhancement of humankind remains abstract.

Manuel Castells was among the first to propose a conceptual framework for understanding this new social environment. He described contemporary society as «networked» – a society in which network structures organising social relations and information flows dominate over the hierarchical systems of the industrial era [6, p. 23]. In such a society, power is concentrated not in control over the means of production, but in control over network nodes and flows: information, algorithms, and platforms. This implies that human technological development does not occur in a neutral space of equal opportunity, but within a deeply structured environment in which some actors possess incomparably greater resources and influence than others. Jan van Dijk developed this perspective further, showing that the networked organisation of society generates new forms of inequality, most notably the «digital divide» between those who have access to digital technologies and networks and those who do not [7, p. 25]. While today this divide primarily refers to access to the internet and digital devices, in the future it may extend to access to cognitive and physical enhancement technologies, with far more profound social consequences.

Luciano Floridi offers an even more radical interpretation of the digital environment. His concept of the «infosphere» – a comprehensive digital ecosystem encompassing all informational processes and interactions – redefines the very conditions of human existence [24, p. 27]. Within this framework, the human being becomes an «inforganism»: a subject whose identity, relations, and experiences are inseparable from digital flows and informational structures. According to Floridi, the Fourth Revolution consists in the fact that digital technologies are, for the first time, transforming not only how humans live, but what humans are, blurring the boundary between online and offline, the virtual and the physical. We no longer merely «go online»; we exist continuously within it, and our digital selves become no less real than our physical embodiment. Recognising the risks of this transformation, Floridi in *The Ethics of Artificial Intelligence* (2023) emphasises the urgent need for a robust ethical framework for AI development – one that prioritises human autonomy, dignity, and well-being over the mere efficiency and profitability of technological systems [25, p. 38].

Social media culture represents another crucial and often underestimated dimension of the digital environment in which transhumanist discourse evolves and new practices of self-optimisation emerge. José van Dijck analyses the «culture of connectivity» as a specific mode of social interaction in which human relationships are increasingly mediated by platforms, while self-presentation, identity, and even self-esteem are shaped by algorithmic infrastructures [26, p. 19]. It is significant that social media has become one of the main arenas in which transhumanist ideas reach mass audiences: communities of biohackers, proponents of the «quantified self», and life-extension advocates are growing online far more rapidly than within academic institutions. As early as 1973, Daniel Bell predicted the emergence of a post-industrial society in which knowledge and information would become central productive forces [27, p. 44]. Today, this prediction has been realised, but in a far more radical form than originally anticipated: we are no longer dealing merely with a knowledge society, but with a condition in which human cognitive and physical capacities themselves become objects of technological enhancement, and the boundary between «knowing» and «being» increasingly dissolves.

Of particular importance in this context is the question of how the integration of artificial intelligence is transforming not only what humans do, but also who they are – above all as creative, thinking, and authorial subjects. The integration of AI into socio-cultural life, and especially into human creative activity, is attracting growing scholarly attention. Whereas only a few years ago the question of machine creativity seemed purely theoretical, today it has become a practical reality: algorithms compose

poetry, generate visual art, produce music, and even assist in writing scientific texts. As S. Kutsepal notes, the combination of artificial intelligence and technical creativity in digital society is forming fundamentally new continuums of human activity that require a rethinking of core concepts such as creativity, authorship, and intellectual contribution [2, p. 87]. This observation is crucial: transhumanist transformations affect not only the body and cognition, but also what has traditionally been considered the most distinctly «human» domain – the capacity for unique creative self-expression. It is precisely for this reason that the question «What is digital society?» is simultaneously the question «Who do we want to become within it?».

Critical perspectives: inequality, surveillance and the loss of humanity. Every major idea generates not only supporters but also critics – and it is precisely in this tension that its resilience is tested. Transhumanism is no exception. The more compelling the technological possibilities for human enhancement become, the more intensive the criticism grows. It is essential to approach these critiques not as expressions of fear or conservatism, but as a necessary corrective without which any ambitious project risks losing its grounding in reality. Critics of transhumanism – philosophers, sociologists, and political theorists – raise questions to which there are no simple answers: who will have access to enhancement technologies? Who will control them, and in whose interests will they operate? And what, ultimately, might we lose alongside what we hope to gain?

The most fundamental of these issues concerns equality. Throughout human history, inequality in access to resources has generated social injustice, yet there has always been one shared denominator that rendered all individuals equal: their common human nature. Rich and poor, educated and uneducated alike were born, aged, and died according to the same biological laws. Transhumanist technologies, however, threaten to disrupt even this last form of equality. Access to enhancement technologies will inevitably be uneven – at least in the initial stages – which may lead to new and potentially insurmountable forms of social stratification between the «enhanced» and the «unenhanced». This is no longer merely inequality of income or opportunity, but a potential inequality of nature itself – of intelligence, lifespan, and quality of life. In *Our Posthuman Future* (2002), Francis Fukuyama articulates this concern with philosophical seriousness: a departure from a shared human nature risks undermining the very foundation of moral and legal equality on which modern liberal democracy rests [28, p. 31]. If human beings are no longer equal by nature, on what grounds can they remain equal before the law or in moral terms? There is no simple answer to this question, which is precisely why it is so consequential.

Alongside the threat of inequality lies the equally serious threat of surveillance and the erosion of privacy – a paradoxical development, since it grows in parallel with technologies that promise human «liberation». In *The Age of Surveillance Capitalism* (2019), Shoshana Zuboff exposes the mechanisms through which technology corporations systematically transform human experience and behaviour into raw material for prediction and behavioural manipulation [29, p. 52]. What began as convenient online searching has gradually evolved into the comprehensive extraction of data about our desires, fears, habits, and relationships – and this process continues to accelerate. Within this context, transhumanist technologies – particularly neural interfaces and biometric monitoring systems – carry the risk not only of «enhancing» human capacities, but also of radically expanding surveillance and control capabilities. If today corporations know our clicks and purchases, tomorrow they may know our thoughts, emotions, and neural patterns. The question of who will access and use this data thus acquires an existential dimension. Zygmunt Bauman and David Lyon, in *Liquid Surveillance* (2013), describe this condition as a form of «liquid surveillance»: a diffuse, mobile, and increasingly voluntary system of monitoring, in which individuals themselves actively participate [30, p. 26]. We upload our data, wear fitness trackers, and connect smart devices – and it is precisely this voluntariness that constitutes the most subtle trap: surveillance, once experienced as a service, is no longer perceived as surveillance.

However, perhaps the deepest and most unsettling critique of transhumanism concerns not its social consequences, but the very logic of technological development and its relationship to human freedom. As early as 1964, in *The Technological Society* (1964) – long before the advent of the internet, smartphones, or artificial intelligence – Jacques Ellul warned of the rise of the «technological phenomenon»:

the tendency of technology to develop according to its own autonomous logic, gradually subordinating all other spheres of human life – economy, politics, culture, and morality [31, p. 42]. According to Ellul, technology is not a neutral instrument in human hands; it possesses its own internal dynamics and imperatives, and ultimately it is human beings who adapt to technology rather than the reverse. This insight has acquired particular relevance in the age of artificial intelligence, where algorithmic systems increasingly do not merely serve human goals but actively shape them, influencing decisions, preferences, and behaviour. This raises a profound question posed by critics of transhumanism: is the transhumanist project truly an expression of human freedom and self-directed improvement, or is it instead the most advanced manifestation of technological determinism, within which humans merely believe they are acting freely?

This is not a rhetorical question. If individuals choose technological enhancement not through autonomous reflection but under the influence of social pressure, market incentives, and algorithmic environments that progressively narrow alternatives, can this still be considered freedom? And if, in the process of overcoming biological limitations, we also abandon the qualities that make us vulnerable, mortal, and interdependent, do we risk losing the very foundations of solidarity, compassion, and meaning? Critical perspectives on transhumanism do not necessarily call for a halt to technological development; rather, they demand something more complex and more demanding: a conscious, democratic, and humanistically grounded determination of the direction in which such development should proceed, and the interests it should ultimately serve.

Discussion. When all strands of the analysis are brought together, the resulting picture is both fascinating and unsettling, and it is precisely this ambivalence that may be considered the most honest conclusion of any serious study of transhumanism. The discourse on technological enhancement of humankind fits neither within the framework of uncritical optimism nor that of apocalyptic pessimism. It unfolds within a field of genuine contradictions – between freedom and control, progress and justice, and boundless possibilities and very real risks. It is precisely these tensions that merit the most careful analytical attention.

One of the most acute tensions running through the transhumanist discourse is the contradiction between individual freedom of self-enhancement and its inevitable social consequences. Transhumanism, in its classical form, is a profoundly liberal project: it emphasises the right of individuals to determine the direction of their own development and to choose the nature of their bodies, minds, and lifespans. This appeal to individual autonomy is compelling, but only insofar as self-enhancement is treated as a private matter. However, once technological enhancement becomes a mass phenomenon, this liberal logic begins to break down: the individual decisions of millions collectively generate systemic social transformations that no one has explicitly chosen. The potential polarisation between the «enhanced» and the «unenhanced», along with profound changes in work, education, leisure, and social interaction, are not merely private consequences of private choices, but societal phenomena requiring public reflection and regulation. L. Floridi emphasises that, in the context of the «fourth revolution», it is no longer sufficient to protect individual rights; it is necessary to rethink the very concept of human identity and formulate new ethical principles capable of safeguarding human dignity within the conditions of large-scale digital transformation [24, p. 31]. This implies that transhumanism requires not only a philosophy of individual self-improvement, but also a philosophy of collective responsibility.

Equally significant is the gap between the compelling promises of transhumanist forecasts and the real risks associated with the development of powerful technologies. R. Kurzweil and N. Bostrom, despite differences in style and emphasis, share a fundamentally optimistic view of the prospects for human – AI convergence, although both acknowledge that this process requires extremely careful governance [19, p. 42]. Their optimism rests on the belief that technological progress is, by its nature, an ally of humankind and merely requires proper guidance. Critics, however, most notably Sh. Zuboff and S. Russell, argue that the very logic of contemporary technological development already undermines human autonomy and privacy, and that there is no guarantee that more advanced future technologies will behave differently [20, p. 33]. This tension between optimists and sceptics is not merely theoretical: the actual trajectory of humanity's technological future will depend on which of these positions prevails in public discourse and regulatory policy in the coming decades.

Behind all specific debates about inequality, surveillance, and the risks of AI lies a more fundamental – and ultimately more existential – question: what is essentially human, and what might we lose in the process of «enhancement»? This question divides thinkers more deeply than any other. Francesca Ferrando is convinced that the very concept of the «human» requires radical rethinking, not only through technological possibilities but also through the recognition of non-human and more-than-human forms of subjectivity, thereby overcoming anthropocentric hierarchies that have shaped human self-understanding for centuries [14, p. 40]. From this perspective, transhumanism is not the loss of the human, but its liberation from artificially imposed constraints. Francis Fukuyama, by contrast, cautions that it is precisely those specifically human qualities – vulnerability, mortality, interdependence, and the capacity for compassion and forgiveness – that are not weaknesses to be eliminated, but the very foundations of moral and legal equality [28, p. 38]. Both positions are intellectually serious, and neither can be dismissed without substantive reflection.

The temporal dimension of the transhumanist project requires separate and particularly profound consideration – a dimension often overshadowed by more «practical» discussions of technology and its consequences. O. Kivlyuk and O. Goncharova demonstrate that transhumanism, as an idea of physical immortality, shapes a fundamentally new temporal paradigm in which traditional notions of human finitude – central to cultural and existential self-understanding – are radically reconfigured [23, p. 272]. Indeed, death is not merely a biological fact; it is a structural principle of human culture, morality, and meaning-making. It is precisely awareness of finitude that compels individuals to value time, build relationships, transmit knowledge and values across generations, and strive to leave something meaningful behind. What, then, becomes of these practices and meanings if death is postponed indefinitely or effectively eliminated? How will individuals and societies adapt to the reality of potentially unlimited lifespans, and might such adaptation prove more psychologically and socially complex than any technological modification of body or mind? There are no definitive answers to these questions, but their very openness demonstrates how deeply the transhumanist project penetrates the foundations of human existence.

Conclusions. This study of the socio-philosophical dimensions of transhumanism in the age of artificial intelligence does not claim to offer exhaustive answers – the subject itself is too dynamic and multifaceted, and the technological context in which these questions emerge is changing too rapidly. Nevertheless, it allows for the identification of several key conclusions that may serve as guideposts for further reflection on one of the most pressing intellectual and practical challenges of our time.

First and foremost, transhumanism is neither a marginal intellectual phenomenon nor an exotic subculture of technology enthusiasts, but a philosophical movement deeply rooted in the tradition of rationalist optimism and technological progressivism, which has gained renewed momentum in the context of rapid advances in digital technologies and artificial intelligence. From the provocative utopian manifestos of FM-2030, which challenged the very foundations of traditional identity, to the academically rigorous and conceptually sophisticated works of Nick Bostrom and the techno-optimistic projections of Ray Kurzweil, transhumanism develops diverse and sometimes contradictory visions of an «enhanced» humanity, united by a shared and profound impulse: the aspiration to overcome the biological limitations of Homo sapiens and to open new horizons for human existence [3, 8, 18]. It is no longer possible to dismiss this movement as science fiction: transhumanist ideas are shaping the research agendas of leading universities and technology corporations, influencing regulatory frameworks and public debate, and resonating with millions of people who make everyday decisions about how to engage with technology in their own lives.

Equally important is the recognition that digital society creates a specific socio-technical environment in which transhumanist transformations take on concrete forms, moving beyond philosophical discourse and laboratory experimentation into everyday reality. The networked organisation of society, the «infosphere», the culture of connectivity, and the algorithmic governance of social processes constitute the context in which technological enhancement of humankind is no longer a utopian vision of the distant future, but a practical project with tangible and already observable social consequences. For this reason, transhumanism is not a question of what will happen «sometime in the future»:

it concerns decisions being made today – in laboratories, parliaments, corporate boardrooms, and in the everyday lives of individuals. This, in turn, underscores the urgent need to develop new ethical frameworks and social institutions capable of governing technological transformation in ways that ensure respect for fundamental values such as dignity, equality, and freedom – values that must not be sacrificed to technological progress [25, p. 50].

At the same time, it would be intellectually irresponsible to ignore the serious social contradictions and risks generated by the transhumanist project. The widening of inequality through unequal access to enhancement technologies, the expansion of surveillance and control capacities, and the gradual erosion of human agency and autonomy under conditions of increasing dependence on algorithmic systems are not hypothetical scenarios, but already observable trends within today's digital environment. Alongside these, there are profound existential questions concerning the meaning and nature of human existence in the context of potential immortality and human–AI integration – questions to which contemporary culture and philosophy have yet to provide convincing answers [29, 28, 30]. Acknowledging these risks is not a rejection of transhumanism, but a necessary condition for a responsible engagement with the real possibilities it opens.

Finally, and perhaps most importantly, a socio-philosophical analysis of transhumanism in the age of artificial intelligence clearly indicates the need to move beyond familiar binary oppositions – «for» and «against» technological progress, «optimists» and «pessimists», «transhumanists» and «bioconservatives». These oppositions oversimplify reality and limit the possibilities of meaningful reflection. What is required instead is a more nuanced, differentiated, and intellectually courageous approach – one capable of holding within a single analytical framework a critical assessment of risks, an openness to genuine possibilities for improving human conditions, and respect for diverse responses to these challenges. Such an approach implies the active involvement of the broader public – not only technological elites and academic experts – in deliberations about the future of technological development, the design of democratic and transparent governance mechanisms, and the construction of new narratives of human identity that are sufficiently flexible and inclusive to accommodate a digital and potentially transhuman future without being either absorbed by it or retreating from it. It is precisely in this direction that further interdisciplinary research should develop, at the intersection of philosophy, sociology, technological ethics, and cultural studies – research whose relevance will only increase alongside the accelerating pace of technological change [2].

Information on the use of artificial intelligence. The authors of this manuscript explicitly acknowledge the use of generative artificial intelligence (AI) in the preparation of this manuscript. In accordance with the Taxonomy of Task Delegation to Generative Artificial Intelligence (GAIDeT, 2025), the following tasks were delegated under full human supervision:

– linguistic and stylistic editing;
– correction of grammatical and spelling errors;
– refinement of the academic writing style;
– literature search;
– formatting of bibliographic references in accordance with the journal's requirements;
– verification of the manuscript's logical structure and consistency.

ChatGPT-5 (OpenAI, June 2025 version) was used for this purpose. All results obtained using this tool were thoroughly reviewed, edited, and approved by the authors, who bear full responsibility for the content and conclusions of the publication.

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Кизименко Ірина Олексіївна
кандидат історичних наук, доцент,
доцент кафедри філософії, соціології та політології
Державного торговельно-економічного університету
вул. Кіото, 19, Київ, Україна
orcid.org/0000-0002-2148-9488

Гусєва Наталія Юріївна
кандидат історичних наук, доцент,
доцент кафедри філософії, соціології та політології
Державного торговельно-економічного університету
вул. Кіото, 19, Київ, Україна
orcid.org/0000-0002-6062-6406

ТРАНСГУМАНІЗМ У ДОБУ ШТУЧНОГО ІНТЕЛЕКТУ: СОЦІОФІЛОСОФСЬКІ ВИМІРИ ЦИФРОВОГО СУСПІЛЬСТВА

Актуальність дослідження. *Стрімкий розвиток штучного інтелекту, біотехнологій та нейроінтерфейсів актуалізує необхідність соціофілософського осмислення трансгуманізму як філософської течії, що обстоює можливість і бажаність технологічного вдосконалення людської природи. В умовах формування цифрового суспільства трансгуманістичні ідеї виходять за межі академічного дискурсу і стають чинником реальних суспільних трансформацій, породжуючи принципово нові запитання щодо природи людської суб'єктності, меж між природним і штучним та майбутнього соціального порядку.* ***Метою статті*** *є дослідження соціофілософських вимірів трансгуманізму в добу штучного інтелекту через аналіз ключових концептуальних засад цього руху, його взаємозв'язку з процесами цифровізації суспільства та критичного осмислення пов'язаних з ним ризиків і перспектив.* ***Методологічна основа дослідження*** *зумовлена поставленою метою і завданнями роботи та характеризується застосуванням міждисциплінарного підходу, що поєднує методи соціальної філософії, технологічної етики, науки про суспільство та медіастудій. У роботі використано порівняльно-історичний аналіз, феноменологічний метод, критичний дискурс-аналіз, а також системний підхід до дослідження соціальних наслідків технологічного розвитку.* ***Результати дослідження.*** *Реконструйовано інтелектуальну генезу трансгуманізму від футуристичних маніфестів FM-2030 до сучасних концепцій технологічної сингулярності та надрозуму. Встановлено, що цифрове суспільство формує специфічне соціотехнічне середовище, в якому трансгуманістичні трансформації набувають конкретних форм і породжують нові соціальні суперечності. Виявлено три ключові напруги трансгуманістичного проєкту: між індивідуальною свободою вдосконалення і його системними соціальними наслідками; між техноoптимістичними прогнозами і реальними ризиками втрати людського контролю над потужними технологічними системами; між прагненням до безмежного вдосконалення і загрозою втрати сутнісно людських якостей як підвалин моральної та правової рівності. Наголошується, що соціофілософське осмислення трансгуманізму вимагає виходу за межі бінарних опозицій техноoптимізму і технофобії на користь виваженого, критичного і гуманістично орієнтованого підходу, здатного поєднати визнання реальних можливостей технологічного прогресу з відповідальним осмисленням його меж і ризиків.*

Ключові слова: *трансгуманізм, штучний інтелект, цифрове суспільство, технологічна сингулярність, постгуманізм, надрозум, мережеве суспільство, інфосфера, технологічна етика, вдосконалення людини.*

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