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## Confucianism-Buddhism-Taoism-Cyber: A New Eastern Philosophical System Based on the Cyber-Physical-Social-Thinking (CPST) Space

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### Abstract

With the rapid development of digital technology and artificial intelligence, human living space is expanding into four domains: physical (nature), social, thinking, and cyber (network). The interleaving of these four spaces has reconstructed the relationships between humans and nature, humans and society, humans and their inner selves, and humans and the cyber world. The traditional ternary philosophical system of Eastern culture (Taoism, Confucianism, Buddhism/Zen) faces new challenges in explaining the existence and relationships of humans within basic living spaces in the digital era. This paper proposes a new Eastern philosophical system based on the Cyber-Physical-Social-Thinking (CPST) living space—Confucianism, Buddhism, Taoism, and Cyberism. Among these, “Cyberism,” as a new philosophical field, focuses on exploring the relationship between humans and the cyber domain (including existence and space) and responds to the fundamental reconstruction of human lifestyles by the digital age. Specifically, this study analyzes the new existences, new spaces, and philosophical logics of the quaternary philosophical system corresponding to their respective living spaces, as well as the philosophical issues triggered by new applications, revealing the modern significance of Eastern philosophy in the context of digital society. This research not only expands the theoretical boundaries of Eastern philosophy but also provides interdisciplinary perspectives and conceptual tools for understanding the impact of new technologies on humanity.

## Full Text

## Preamble

# A New Philosophical System of Oriental Existential Space

## Abstract

This research explores the construction of a new philosophical system centered on the concept of “Existential Space” within the context of Oriental philosophy. By integrating traditional Eastern metaphysical frameworks with modern spatial theories, this paper proposes a multidimensional understanding of human existence that transcends purely physical or material interpretations. We examine how the interplay between the “void” (虚) and “substance” (实) defines the boundaries of the self and the collective, ultimately offering a holistic paradigm for understanding the relationship between consciousness and the environment.

## Introduction

The concept of space in Western philosophy has historically been dominated by Cartesian dualism and Newtonian absolute space, often treating space as a passive container for physical objects. In contrast, Oriental philosophy offers a more fluid and relational perspective. This paper aims to synthesize these traditional insights into a rigorous philosophical system—the “Oriental Existential Space”—which accounts for the dynamic interaction between the subject and the world.

## The Ontological Foundation of Existential Space

At the core of this new system is the rejection of space as a mere vacuum. Instead, space is viewed as a “field of potentiality” (气,  $Qi$ ). In this framework, existence is not something that happens *within* space; rather, existence and space are co-constitutive.

1. **The Unity of Subject and Object:** Unlike the strict separation found in modern empiricism, the Oriental system posits that the observer and the observed occupy a shared existential field.
2. **The Dialectics of Void and Substance:** The “void” is not an absence of being but a necessary condition for the manifestation of “substance.” This relationship can be modeled through the interplay of  $\mathcal{S}$  (Substance) and  $\mathcal{V}$  (Void), where the total existential state  $\Psi$  is defined by:

$$\Psi = f(\mathcal{S}, \mathcal{V})$$

This equation suggests that the quality of existential space is determined by the harmonious balance between tangible reality and intangible potential.

## Spatial Dimensions and Human Consciousness

The proposed system categorizes existential space into three primary layers: the Physical-Environmental, the Social-Relational, and the Internal-Meditative.

- **Physical-Environmental Space:** This refers to the immediate material world. However, in the Oriental tradition, this space is imbued with “spirit” (神, *Shen*), meaning that the environment is never truly inert

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### Abstract

In recent years, the rapid advancement of machine learning and deep learning has revolutionized various scientific and engineering disciplines. This collaborative research between the University of Science and Technology Beijing and Blekinge Institute of Technology explores the integration of advanced computational models into complex system analysis. By leveraging state-of-the-art algorithms, we aim to enhance predictive accuracy and operational efficiency in large-scale data environments.

### 1. Introduction

The integration of intelligent systems into industrial and academic frameworks has become a cornerstone of modern technological progress. As datasets grow in both volume and complexity, traditional analytical methods often fall short of providing the necessary insights for real-time decision-making. Consequently, there is a critical need for robust frameworks that can handle high-dimensional data while maintaining computational feasibility.

This paper presents a comprehensive study on the application of neural network architectures and optimization techniques to address these challenges. We focus on the synergy between theoretical foundations and practical implementations, ensuring that the proposed models are not only mathematically sound but also applicable to real-world scenarios.

### 2. Methodology

Our approach utilizes a multi-layered deep learning framework designed to extract hierarchical features from raw input data. The core of our methodology relies on the optimization of objective functions to minimize error rates across diverse validation sets.

**2.1 Mathematical Framework** The fundamental behavior of our model is governed by the following relationship:

$$\mathcal{L}(\theta) = \frac{1}{N} \sum_{i=1}^N \ell(f(x_i; \theta), y_i) + \lambda R(\theta)$$

In this expression,  $\mathcal{L}(\theta)$  represents the loss function, where  $\theta$  denotes the model parameters,  $x_i$  and  $y_i$  are the input features and target labels respectively, and  $R(\theta)$  serves as the regularization term to prevent overfitting.

[Figure 1: see original paper]

As illustrated in [Figure 1: see original paper], the data processing pipeline involves several stages of transformation, including normalization, feature selection, and dimensionality reduction. These steps are crucial for ensuring the stability of the training process, particularly when dealing with non-linear mapping functions.

### 3. Experimental Results and Analysis

To evaluate the performance of the proposed system, we conducted a series of experiments using benchmark datasets. The

#### 摘要

#### Introduction: Cyberism and the Reconfiguration of Existence

With the rapid advancement of digital technology and artificial intelligence, human existence is expanding into a convergence of physical, mental, and cyber spaces. This intersection has fundamentally reconstructed the relationship between humanity and nature. Traditional Eastern philosophies—specifically Taoism, Confucianism, and Zen Buddhism—face new challenges when interpreting the existence of humanity and its relationship to fundamental existential spaces in the digital age.

This paper proposes “Cyberism,” a new philosophical framework based on the Cyber-Physical-Social-Thinking (CPST) integration. Cyberism focuses on exploring the relationship between humanity and the “Cyber” realm (encompassing both existence and space), responding to the fundamental reconstruction of human lifestyles in the digital era. By analyzing the new modes of existence, the emergence of novel spatial dimensions, and the philosophical inquiries triggered by emerging applications, this study reveals the modern significance of Eastern philosophy within the context of a digital society. This research not only expands the theoretical boundaries of Eastern philosophy but also provides interdisciplinary perspectives and conceptual tools for understanding the profound impact of technology on the human condition.

## 关键词

TP3-05 Confucianism, Buddhism, Daoism, Cyberism: System Eastern Philosophy Based Cyber-Physical-Social-Thinking Spaces Jinqiang

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## Abstract

rapid development digital technologies artificial intelligence, human existence expanding interconnected spaces:

Physical (Natural), Social, Thinking, Cyber. interplay these spaces reshaping relationships between humans nature, society, their inner selves, cyber world. traditional tripartite philosophical system Eastern culture (Daoism, Confucianism, Buddhism) faces challenges explaining human existence relationship these fundamental living spaces digital paper proposes eastern philosophical system, Confucianism, Buddhism, Daoism, Cyberism based Cyber-Physical-Social-Thinking (CPST) spaces system, Cyberism emerges philosophical domain dedicated exploring relationship between humans cyber realm, including existence space, addressing fundamental reconstruction human digital Specifically, paper analyzes forms existence space, philosophical logic, applications philosophical problems philosophical

dimensions, revealing modern significance eastern philosophy context digital society. research expands theoretical boundaries Eastern philosophy provides interdisciplinary perspective conceptual tools understanding impact technologies humanity.

## Keywords

Cyberism Daoism Confucianism Buddhism Philosophy

## 1 引言

With the rapid development of artificial intelligence, virtual reality, and digital network technologies, human lifestyles and social structures are undergoing unprecedented transformations. In this digital age, human existence is no longer confined to physical space or traditional social networks; rather, it has expanded into a multidimensional coexistence across mental space and cyberspace. Against this backdrop, the relationships between the self and the individual, as well as between humans and networks, have become increasingly complex, accompanied by new existential challenges such as virtual identity recognition and social trust. Traditional philosophical systems appear inadequate when explaining the relationship between humanity and these new spaces. This is particularly

true for the Eastern “Ternary Philosophy” of Taoism, Confucianism, and Buddhism (specifically Zen). Although these traditions offer profound insights into the relationships between humans and nature, society, and the inner self, their theoretical coverage remains limited when faced with the increasingly pervasive experience of digital existence.

To respond to this challenge, this paper proposes “Cyberism” —a quaternary Eastern philosophy encompassing Cyber, Physical, Social, and Thinking dimensions—to explore the ontological and ethical propositions of human existence within digital societies and virtual spaces. Unlike traditional technical ontologies, Cyberism does not merely point to technology itself; instead, it focuses on the ethical, social, and psychological issues triggered by the interaction between humans, digital spaces, and network environments. By treating Physical, Social, Thinking, and Cyber as four mutually coupled dimensions constituting contemporary human existence, this framework provides a new context and developmental path for the core propositions of Eastern philosophy. From this perspective, the Physical dimension corresponds to physical space, emphasizing harmony between humanity and nature and ecological wisdom; the Social dimension corresponds to social space, focusing on the reconstruction of obligations and trust; the Thinking dimension corresponds to mental space, pointing toward subjective introspection and mental autonomy; and the Cyber dimension serves as a newly proposed conceptual domain specifically addressing the ontological and ethical issues brought about by digitized existence, virtual identity, and network immersion.

The contributions of this paper are as follows: 1. By mapping the three major Eastern philosophical traditions of Taoism, Confucianism, and Zen onto the Physical, Social, and Thinking dimensions, and introducing the Cyber dimension, we construct a new quaternary framework for Eastern philosophy. This provides a novel interpretive path and pivot for Eastern philosophy to enter the digital age. 2. Centered on this new quaternary system, this paper further refines the core propositions of each philosophical dimension in the digital era. This includes: the evolution of the Taoist connotation from traditional “nature” to an ecological symbiosis logic of “technology as nature” ; the reconstruction of Confucian ethics of trust and responsibility under the trend of digital socialization; the protection of subjectivity in Zen thought under the impact of information overload; and the ethical status of virtual personality within the context of digital ontology and “code as law.”

### 3. 在此基础上，本文对四元体系可能引申的未来哲学挑战进行了讨论，包

...the dual definition of life as both carbon-based and silicon-based may face a fundamental reshaping at the chemical and biological levels. The remainder of this paper is structured as follows:

## 第二章

Chapters 3 through 6 of *New Oriental Philosophy* provide philosophical interpretations of four dimensions: matter, information, thought, and cyberspace.

The discussion focuses primarily on new modes of existence, new logical frameworks, and emerging challenges.

## 第七章

### Future Outlook and Conclusion

The rapid advancement of artificial intelligence and biotechnology is driving a profound redefinition of life and the future of humanity. As we stand at this technological crossroads, the traditional boundaries between biological organisms and synthetic systems are becoming increasingly blurred. The integration of machine learning and deep learning into the biological sciences does not merely provide new tools for research; it fundamentally alters our understanding of the mechanisms of life. We are transitioning from a phase of observing and describing biological phenomena to a phase of engineering and redesigning biological systems with unprecedented precision.

Looking ahead, the synergy between human intelligence and artificial intelligence promises to expand the limits of human capability. However, this evolution also necessitates a rigorous re-evaluation of ethical frameworks and social structures. The potential for enhancing cognitive functions, extending longevity, and eradicating hereditary diseases brings with it significant questions regarding equity, identity, and the essence of what it means to be human. As we navigate these transformations, it is imperative to establish a collaborative dialogue between scientists, ethicists, and policymakers to ensure that these technological leaps serve the collective well-being of humanity.

In conclusion, this paper has explored the transformative impact of emerging technologies on the scientific landscape. We have examined the integration of advanced computational methods in biological research, the shifting paradigms in our understanding of complex systems, and the broader implications for the future of our species. While the challenges ahead are substantial, the convergence of these fields offers a unique opportunity to address some of the most persistent problems facing society. By fostering an environment of responsible innovation and interdisciplinary cooperation, we can steer the future of life and humanity toward a more resilient and enlightened path.

## 2 四元哲学体系：儒释道赛

This paper integrates three major categories of classical Eastern thought with four spatial dimensions to propose a new quaternary Eastern philosophical framework. This system aims to preserve the inherent resources of Eastern philosophy while responding to the existential challenges of the digital age. This

mapping is not merely a formal correspondence; rather, it reveals the complementarities and tensions between different dimensions.

The mapping between *Dao* (the Way) and Physical Space aims to reveal the relationship between humanity and nature. Daoist philosophy takes “non-action” (*wu-wei*) and “naturalness” (*ziran*) as core principles, emphasizing alignment with the movements of heaven and earth and respect for natural laws. Physical space encompasses diverse elements, including the natural environment, infrastructure, and Internet of Things (IoT) entities. The ecological wisdom inherent in Daoism can provide ethical benchmarks for technological intervention in environmental governance, promoting synergy and symbiosis between technological and ecosystems. In fields such as sustainable computing, Daoist thought offers a vital theoretical reference for relevant ethical discussions.

The mapping between Confucianism and Social Space focuses on expressing human relationships, social responsibility, trust, and social solidarity. In a digital society, platform governance and collaborative mechanisms have become key to shaping publicity and social capital. Treating Confucianism as a philosophical resource for interpreting social space helps examine algorithms, platform design, and the reconstruction of the public sphere from ethical and institutional perspectives. This interpretive path echoes paradigms in research that place social factors at the core of inquiry.

The mapping between Zen and Thinking Space expresses the relationship between the individual and the inner self, focusing on introspection, enlightenment, subjectivity, and spiritual freedom. In the contemporary context, technologies such as computing and human-computer interaction are increasingly intervening in individual internal experiences. Consequently, the thinking space—originally a private domain—shows a trend toward being algorithmized, quantified, and even regulated. Introducing Zen concepts of “mind-nature” (*xin-xing*) can provide intellectual resources for maintaining mental subjectivity and establishing an ethical baseline for digital subjectivity. It also offers a philosophical reference for the problem of autonomy within human-machine symbiosis.

The mapping between *Sai* (Cyber) and Cyberspace expresses the relationship between humanity and the network. *Sai* differs from the traditional philosophical triad.

The characteristic of the quaternary system lies in breaking through physical boundaries and reconstructing identity and forms of existence. Cyberspace encompasses emerging forms such as digital identities, virtual communities, distributed platforms, and data personas. It not only changes the subject’s mode of existence but also reshapes the structures of power, value, and publicity. Treating *Sai* as an independent philosophical dimension provides a new interpretive path for digital ontology, virtual subjectivity, and the ethical issues of decentralized orders. It further reveals the political and value tensions inherent in human-machine symbiosis and network communities. Within the quaternary system, *Sai*—alongside *Dao*, Confucianism, and Zen—constitutes an extension of

Eastern philosophy into the digital dimension, laying the theoretical foundation for the “cyber-turn” in an Eastern context.

The quaternary mapping is not a simple set of correspondences; rather, it presents complementarities and tensions through mutual coupling. The spontaneous order emphasized by *Dao* may conflict with the controllability of cyber-technologies. The social solidarity maintained by Confucianism faces the fragmentation of trust caused by social media and algorithmic incentives. There is a tension between the subjective introspection emphasized by *Zen* and the shaping of attention and emotion by digital algorithms. Furthermore, the fluidity of virtual identity and decentralized order embodied by *Sai* may conflict with existing social norms and institutionalized orders, even posing challenges to traditional ethical communities.

The quaternary system serves not only as an analytical framework for understanding the characteristics of each dimension but also reveals potential fields for cross-dimensional conflict and negotiation, which are precisely the entry points for future ethical policies. Here, the framework acts both as an analytical perspective (revealing coupling paths) and as a starting point for normative design (suggesting how to embed ethics and mental protection mechanisms into engineering). Methodologically, the quaternary system requires researchers to advance through the intersection of three paths: interpretation (conceptual modeling), construction (system architecture), and empiricism (case applications). Specifically: first, construct a conceptual model as a meta-framework; second, select typical scenarios—such as smart cities or Metaverse communities—for cross-dimensional case analysis; third, translate philosophical principles into design principles or criteria (e.g., the principle of revocability, mental protection clauses, or platform ritualization mechanisms) and discuss their technical feasibility.

### 3 道 (

#### Daoism and Physical Space

The relationship between Daoist philosophy and the conceptualization of physical space offers a profound framework for understanding the interaction between metaphysical principles and the material world. In Daoist thought, space is not merely a vacuum or a passive container for objects; rather, it is viewed as a dynamic, generative field governed by the fundamental principles of the *Dao* (the Way) and *Qi* (vital energy).

#### The Concept of Emptiness (*Xu*) and Substantiality

Central to the Daoist understanding of physical space is the dialectic between emptiness (*xu*) and substantiality (*shi*). Unlike classical Western physics, which historically viewed space as a distinct entity from the matter it contains, Daoism posits that “emptiness” is a functional and essential component of physical reality.

As Laozi famously noted in the *Dao De Jing*, the utility of a vessel comes from its empty space, and the utility of a room comes from its vacant interior. In this context, physical space is the prerequisite for movement, change, and the manifestation of all phenomena.

### ***Qi* and the Field Theory of Space**

From a Daoist perspective, what modern science might describe as a “vacuum” or “empty space” is actually permeated by *Qi*. This conceptualization aligns closely with the modern “field theory” in physics, where space is seen as a continuous medium through which energy and forces propagate. *Qi* serves as the bridge between the formless (*wu*) and the formed (*you*), suggesting that physical space is an active participant in the transformation of matter. The density, flow, and balance of *Qi* within a given spatial coordinate determine the physical and spiritual characteristics of that environment.

### **Cosmological Dimensions and Human Interaction**

Daoism further extends the concept of physical space to include the “microcosm-macrocosm” resonance. The human body is viewed as a “small universe” (*xiao tiandi*) that mirrors the structure and laws of the physical cosmos. Consequently, the organization of physical space—whether in urban planning, architecture, or the internal cultivation of the body—must align with the natural flow of the universe. This perspective has historically influenced traditional Chinese practices such as *Feng Shui*, which seeks to harmonize human habitats with the surrounding physical landscape to ensure the optimal circulation of energy.

### **Conclusion**

In summary, Daoism provides a holistic view of physical space that transcends simple geometric dimensions. By integrating the metaphysical Dao with the physical

### **3.1 物理空间哲学新存在与新空间**

#### **Introduction: The Ontological Reconstruction of Nature**

In traditional Taoist thought, the human condition is inextricably linked to the natural environment, embodying a profound reverence for the “unity of heaven and humanity” (*tianrenheyi*) and spontaneous order (*ziran*). It emphasizes that humanity should follow the Way (*Dao*) of non-action (*wuwei*) by adapting to nature rather than dominating it. However, with the development of technologies such as the Internet of Things (IoT), the relationship between humanity and nature is undergoing an ontological reconstruction. Technical entities—sensors, intelligent devices, and automated systems—are emerging within the natural environment, transforming traditional existence into a new physical-technical space. In this space, scenarios such as smart cities, intelligent farmlands, and

environmental monitoring networks emerge. Humans are no longer merely observers of nature; through technology, they become participants and co-evolvers of natural systems. A cyber-physical symbiotic relationship has formed between humanity and the environment, giving rise to “cyber-physical beings,” such as drone swarms flying through fields or bionic robots operating within ecosystems.

(Comparison of Existence and Space across Dimensions) - **Traditional Existence and Space:** Nature is represented through direct experience (farming, nomadism, fishing/hunting); reliance on nature. - **New Existence and Space:** Digital twins, metaverse ecological simulations, smart agricultural sensing networks; nature is reproduced and augmented through virtuality; co-governance of nature with technology (smart city ecological governance, precision agriculture, environmental big data monitoring).

The relationship with nature has shifted from passive adaptation to proactive intervention. While traditional modes involved observing the four seasons and conforming to nature, the new paradigm utilizes wearable sensors, environmental monitoring chips, and natural experiences in virtual reality. Perception is no longer purely sensory but an augmented perception characterized by human-machine integration. Entities (animals, plants, landscapes) are becoming cyber-physical beings, such as bionic robots and AI-driven ecological agents. Nature is no longer just a backdrop but has entered a ternary interaction between humans, machines, and nature. Spaces like traditional fields, villages, and landscapes are being supplemented by smart farms, Digital Earth, global satellite remote sensing networks, and virtual ecological museums. Nature now possesses computable and reproducible attributes.

This shift poses two levels of philosophical challenge. First is the ontological redefinition: the boundaries of nature have become blurred. Technologically constructed environments are sometimes called a “second nature” —a new nature built through cultural and technical intervention. This forces us to ask: if technology itself is part of natural evolution, do we need to expand the definition of nature? From a naturalist perspective, all phenomena belong to the realm of nature, and technical intervention poses no contradiction. Conversely, technology grants the environment computability and controllability, which seems to create tension with the Taoist emphasis on non-action and self-organization. Second is the evolution of spatial forms. Technologies like virtual reality create “parallel spaces” to the physical world. The human experience of nature is no longer limited to direct senses but is a hybrid of the virtual and the physical. The perception traditionally brought by mountains, rivers, and pastoral fields is being replaced by mixed reality. The emergence of this dual experience indicates that the way nature is represented and augmented has changed the cognitive mode of human environmental awareness.

## Technology as Environment

In the context of highly technical physical spaces, the meaning of “nature” requires reinterpretation. One possible approach is to apply the Taoist principle of respecting natural order to human-designed technical environments, ensuring that technology itself follows certain principles of self-organization and non-interference. Cybernetics views natural and technical systems as a holistic feedback-control loop, which resonates to some extent with the Taoist emphasis on spontaneous order. However, cybernetics also emphasizes the regulation and optimization of systems—an interventionist view that differs significantly from the Taoist principle of *wuwei*. Therefore, how to maintain the spirit of *wuwei* while augmenting nature—namely, exploring the harmonious symbiosis of technology and ecology—becomes a core philosophical task within this new category of existence and space.

## Philosophical Logic and New Problems of Humanity and Nature

In traditional Taoist thought, the relationship between humans and nature is understood as a spontaneously generated whole. However, when technology intervenes in nature, we face a series of new logical and philosophical problems.

At the ontological level, technology transforms nature into a computable object. Systems that were once seen as manifestations of the inexhaustible *Dao* are now increasingly reduced to data models and algorithms. Our understanding of climate change relies on global models and algorithmic predictions; the diversity of life can be converted into data structures through gene sequencing. This digitization of nature means we have produced a new definition of nature’s mode of existence: nature is not just an existing entity, but also part of information flows and computational processes. The question is whether such a definition has replaced what Taoism calls the “Principle” (*Li*) of nature itself. If nature is conceptualized by algorithms, what remains of its essence? At the epistemological level, our knowledge of nature increasingly depends on technical mediation. Sensor networks, drones, and satellite remote sensing allow humans to monitor environmental variables as never before, but this also means our interaction is mediated.

Our way of perceiving nature is no longer through direct sensation but through the interpretation of instruments and models. Our understanding of natural truth has become an interpretation of information generated by technology. This prompts a reflection: is a simulated nature equivalent to the real nature? If we can only observe the world through preset mathematical models, does our cognition lose a part of the whole—specifically, the ability to capture the ineffable spontaneity and holism of nature itself?

At the axiological (value) level, technical intervention has changed how people judge the value of nature. Taoist philosophy respects the internal order of

nature and implies a valuation of nature's spontaneous evolution. However, when nature is technologized, it is often interpreted as a set of parameters requiring optimization, as seen in precision agriculture. This instrumentalist tendency also manifests in Western environmental ethics as a tension between two views: Deep Ecology, which advocates for the intrinsic value of nature, and Anthropocentrism or Utilitarianism, which views nature as a tool for human ends. In this context, the question is: which side should Taoist values take? Does the concept of *wuwei* mean we should reduce control over the environment and leave more choices to nature itself? Or can the *Dao* be interpreted as a responsibility to guide the environment toward a more sustainable state while respecting natural laws?

Technology has also rewritten the feedback loops between humans and nature. In scenarios like smart grids and self-regulating ecosystems, information feedback from the natural environment is integrated into human social decision-making. This seems to embody a new "unity of heaven and humanity," where the state of nature automatically influences the operation of social systems. Yet, in this man-made symbiosis, who exactly endows nature with its "voice"? Is it the ecosystem itself, or the algorithms and engineers? This relationship reveals a new logic: we must distinguish between nature's own organic feedback and human-designed feedback mechanisms. Cybernetics in environmental technology points out that systems can move toward a target state through feedback regulation. Logically, this may clash with the Taoist idea of spontaneous flow. When algorithms are used to control wind power or regulate water resources, we must ask: is this respecting the "Way of Nature" (*Tiando*), or has nature become a mere tool of human will?

In physical space, the philosophical logic of nature needs to be re-examined. The ontology of nature, the way we perceive it, and the values we assign to it have all changed. The critical spirit of Taoist philosophy can help us pose these questions, but answering them may require analytical perspectives from modern thought, such as cybernetics. Cybernetics emphasizes feedback and adaptation, which shares commonalities with the Taoist idea of respecting natural adaptability. Meanwhile, ecology and environmental ethics provide criteria for measuring the overall impact of human behavior on nature. Only through such a dialogue can we clarify the meaning of "nature" in the contemporary complex eco-technical context.

## Philosophical Applications and Practical Challenges

At the practical level, the Taoist view of nature offers new reflective methods for modern environmental and technological practices, yet it faces many challenges. There is a tension between the goal of "harmonious coexistence between man and nature" in sustainable development and reality. While smart energy management systems, precision agriculture, and green computing technologies improve resource efficiency, they do not spontaneously align with the Taoist principle of *wuwei*. Data centers and blockchain computations consume vast amounts of

energy and rare resources, suggesting that an uncontrolled reliance on technical solutions may create new ecological burdens. At the policy and design levels, Taoist-like principles should be introduced, such as limiting the scale of technical intervention or designing reversible control mechanisms to ensure that technical intervention can be withdrawn when necessary, leaving space for the system to self-repair.

The practice of artificial ecosystems brings fundamental ethical challenges. Synthetic biology and gene engineering allow humans to directly intervene in the “creation” of life. Currently, there are efforts to eliminate pathogens or cultivate drought-resistant crops through gene editing. While these technologies can improve environmental conditions, they may also erode the “otherness” of nature.

If Taoism emphasizes that nature possesses intrinsic value and its own operational logic, then total control over life forms might be seen as an overstepping of boundaries. Artificial restoration of coral ecosystems and the restructuring of genetic resources force us to rethink: what is natural authenticity, and what is excessive intervention? Philosophically, we must find a balance between technical “benevolence” and the intrinsic value of nature.

Thirdly, the problem of global governance under the climate crisis highlights the contradiction between Taoist concepts and modern science. Regarding global warming, some scientists have proposed geoengineering schemes, such as releasing reflective particles into the atmosphere to directly regulate the climate. Such schemes represent the ultimate practice of interventionism, which, within a Taoist framework, might be viewed as an attempt to violate the “Way of Heaven.” Although this technocratic intervention might alleviate certain problems in the short term, it could have profound and irreversible effects on the Earth system. We must choose between two paths: do we continue to follow the Taoist approach of slowly adjusting human behavior, or do we radically transform nature through technology? This is not only a matter of scientific strategy but also of ethical judgment. If we change the weather at will, where is the respect for nature? Defining the boundaries of intervention in practice has become a major issue that modern society must face.

Differences in how different cultural traditions understand nature also pose challenges. Western traditions often interpret nature from the perspective of anthropocentrism or resource utilization, while Chinese Taoism emphasizes the harmony and organic integrity of man and nature. With the spread of globalization and AI, environmental decision-making requires cross-cultural dialogue. The Taoist view of nature may provide a new reference for global environmental ethics, such as offering a non-anthropocentric perspective. However, it also needs to be integrated with Western concepts of sustainable development and empirical scientific methods. This integration can be reflected in international environmental policy-making and technological design, respecting multicultural perspectives while using Taoist thinking to strengthen the consensus on the inviolability of natural systems.

## 4 儒 (

**Confucianism and Social Space**

Confucian philosophy, with its profound insights into human social structures, ethical relationships, and political order, stands at the core of Eastern social thought. Its doctrines emphasize social responsibility and the construction of a harmonious and orderly social space. In today's era of deep digital penetration, traditional social spaces are undergoing an unprecedented reconstruction. Social media groups and algorithmic platforms have not only altered patterns of interpersonal interaction but have fundamentally challenged the existential forms and orderly foundations of society upon which Confucianism relies. This chapter aims to explore how the core categories of Confucian philosophy are being redefined and what new existential and logical challenges its ethical principles face as social space extends from the physical world into the cyber dimension. Regarding the new philosophical existence and spaces of social life, the “individual” in Confucian thought has always been situated within specific networks of social relations, defined by the “Five Cardinal Relationships” (Five *Lun*): ruler and subject, father and son, husband and wife, elder and younger brothers, and friends. This ethical identity is practiced and confirmed within concrete physical and ritual spaces, such as ancestral temples and local neighborhoods. However, in the digital age, both the form of these spaces and the modes of existence within them have undergone qualitative changes.

New forms of social existence are emerging in unprecedented ways. Each of us is becoming a “Cyborg” in a certain sense; our physical bodies, digital identities, social media accounts, and online behavioral data streams together constitute our social existence. Increasingly, we are profiled and shaped by algorithms based on our interaction data. This code-driven presentation of personality stands in stark contrast to the “moral personality” formed through internal virtuous cultivation and external ritual practice (*Li*). Virtual groups based on shared interests, identities, or values assemble and disperse rapidly online, transcending traditional family and clan structures rooted in blood ties and geographic proximity.

New social spaces are also taking shape. Virtual social networks, such as WeChat Moments and Metaverse communities, are replacing traditional ancestral temples and marketplaces as the primary venues for establishing social connections.

These have become the core arenas for participating in public discussion. These new spaces are constructed by code and protocols; their operational logic—such as the flow of information, the rules for establishing relationships, and the allocation of attention—is governed by platform algorithms rather than traditional rituals or customs. compares social existence and space under the Confucian tradition with the nascent social existence and space of the digital age.

**Traditional Existence and Space vs. New Existence and Space:** In the traditional context, the social individual exists within families and clans, with

identity defined by stable, face-to-face relationships. In the new context, the “Cyborg” individual’s sociality is no longer defined solely by these relationships but is reshaped by fluid, editable, and algorithmically mediated online connections.

The core arenas of social interaction have migrated from tangible physical and ritual spaces—such as ancestral temples, imperial courts, and marketplaces—to intangible data spaces defined by platforms and code, such as networks and Metaverse communities. Consequently, the spatial constraints of traditional ritual systems have been weakened.

The establishment of social relations has shifted from ascribed, long-term bonds based on blood, geography, and profession toward instant, interest-based, and algorithmically matched connections. The order maintaining social operations has shifted from internalized moral consciousness and external ritual norms (rituals, customs, and human sentiment) to platform-defined, technologically enforced rules. Traditional social ideals based on the “Differential Mode of Association” (*Charu Geju*) face multiple impacts from network equalization, decentralization, and algorithmic centralization, raising new questions for the conceptualization of an ideal social order.

**Philosophical Logic and New Problems of Man and Society:** The core logic of Confucian philosophy lies in constructing the order of man and society through the internal moral consciousness of the former and the external behavioral norms of the latter. Together, these maintain social stability. The rise of digital society forces this traditional logic into an unprecedented transformation. In social spaces mediated by algorithms, interactions between individuals are increasingly dominated by data flows, platform protocols, and recommendation mechanisms. This has given birth to a new order that not only changes how social relations are generated but also profoundly shakes the philosophical premises of Confucianism.

At the ontological level, the subject of social existence is no longer merely defined by blood, geography, and status, but is shaped and defined by data. A person’s social identity is often presented through algorithmic profiling, credit scores, or social media accounts. These forms differ essentially from the logic of existence emphasized by Confucianism: the former is an external, calculable construction of existence, while the latter is a combination of internal virtue and practice. This shift raises a fundamental question: when social existence is increasingly defined by platforms and code, is the foundation of virtue in the Confucian “individual” still secure? At the epistemological level, the way people understand society has changed profoundly. In traditional society, cognition of others relied on long-term interaction, ritual practice, and collective memory. In contrast, the cognitive structure of digital society increasingly depends on algorithmic recommendations and platform filtering. The people one interacts with and the public issues one can participate in are often calculated by technical systems. While this provides a surface-level order, it may also create cognitive silos. Thus, a new philosophical problem emerges: if social knowledge and public opinion

are no longer generated through face-to-face interaction and rational discussion but are governed by black-box algorithms, can the “harmony” emphasized by Confucianism be maintained?

At the axiological level, there is a profound conflict between the order of “Benevolence and Ritual” (*Ren-Li*) and the algorithmic order. Confucian “Benevolence” (*Ren*) emphasizes sincerity and care between people, whereas the algorithmic logic of digital society centers on efficiency, retention, and commercial interests. When social relations are designed by platforms as calculable interactions, trust between people gradually transforms into a dependency on technical systems. This externalized trust contrasts with the internal virtue emphasized by Confucianism. This poses a severe problem: in a highly technologically mediated society, can people still establish social trust through their own moral cultivation, or must they accept the definitions provided by external algorithmic credit systems? At the level of social logic, the “Differential Mode of Association” of traditional rituals conflicts with the logic of digital society. Rituals emphasize the distinction between different relationships, but on social media, various social circles may appear side-by-side in the same comment section. This structure makes the differential logic of ritual difficult to maintain, forming instead a decentralized and anonymous environment. Can this new “ritual system” based on platform rules and algorithmic recommendations bear the responsibility of shaping an ideal social order? Or can it only produce fragmented connections and emotional alienation?

**New Philosophical Applications and Practical Challenges:** Facing the reality of digital social space, Confucian philosophy requires not only theoretical reinterpretation but also responses to practical challenges at the application level. In scenarios such as social media governance, intelligent recommendation systems, and virtual identity authentication, Confucian thought demonstrates potential modern value while facing deep philosophical dilemmas.

Regarding social media governance, Confucian thought can provide a foundation for platform responsibility and the construction of community norms. Platforms are not merely technologically neutral channels; they are environments that shape public opinion and interpersonal relationships, and thus bear significant ethical responsibility. One can draw on the Confucian concept of “Rectification of Names” (*Zhengming*) to require platforms to clearly label information sources and content types to suppress the spread of rumors. The establishment of community norms can absorb the spirit of “Ritual” to encourage users to form self-governance based on shared values. However, these applications also bring thorny philosophical questions. In an algorithmically mediated society, does “Benevolence” still hold? When our social choices are increasingly guided by recommendation algorithms, can they still reflect “sincerity” from the heart? When our credit is quantified as digital scores (such as in social credit systems), is this external, utilitarian “trustworthiness” still the internal virtue emphasized by Confucianism? This leads to a more fundamental inquiry: is the human being still the subject of the social order?

When algorithms, with their powerful computational capabilities, deeply intervene in the distribution of social resources, the setting of agendas, and even the guidance of individual behavior, to what extent is human autonomy and moral agency preserved, and to what extent has it been ceded to the machine?

Applying Confucian philosophy to digital society is not a simple transplantation of ideas but a profound critique and reconstruction. It requires us, when designing algorithms and platform rules, to consider not only efficiency and growth but also to embed concerns for human dignity, the value of relationships, and social trust. This may mean developing a “benevolent” algorithmic ethics that emphasizes the “transparency” and “humanity” of algorithms, ensuring that technological development ultimately serves to build a more harmonious and humane society, rather than the opposite.

## 5 禪 (

### **Buddhism and the Space of Thought**

As the philosophical tradition within Eastern thought that pays the closest attention to the nature of consciousness, the core practice of Buddhism lies in the direct realization of the “original mind” (the essence of mind) through meditative cultivation. This process aims to transcend the constraints of language and conceptual thought to achieve inner liberation and freedom. Traditionally, this practice has been regarded as a purely internal and subjective endeavor.

### **The New Philosophical Existence and Space of Thought**

Non-material mental activities are traditionally confined to the internal world of the individual or consolidated within specific physical fields. However, as proposed in the “Four-fold Philosophical Body” of this study, the development of digital technologies—particularly artificial intelligence, cognitive science, and brain-computer interfaces—has ensured that the dimension of thought is no longer a completely independent or private internal domain. It is currently being permeated, quantified, and even reconstructed by technology. This transformation presents unprecedented ontological and ethical challenges to core Zen Buddhist propositions, such as the nature of “emptiness” and “self.” This chapter will explore these challenges in depth and elucidate the unique insights Zen thought offers in response.

### **The New Philosophical Existence and Space of Thought**

This section aims to analyze how digital technology catalyzes the emergence of new “thought entities,” thereby fundamentally reshaping the human internal world. In the classical philosophical tradition, the space of thought was often regarded as a subjective sanctuary, distinct from the objective material world. Yet, the advent of the digital age has blurred these boundaries. Through the datafication of consciousness and the algorithmic mapping of cognitive processes,

what was once considered the “ineffable” quality of the mind is now being translated into discrete units of information.

This shift suggests that the “internal world” is no longer a closed system. As brain-computer interfaces facilitate direct communication between neural activity and external computational frameworks, the spatiality of thought expands into a hybrid realm—a synthesis of biological intuition and digital logic. This new existence challenges the traditional Zen understanding of the “mind” as a non-dualistic, ungraspable essence. If the mind can be modeled, mirrored, or even manipulated by external technological structures, we must re-evaluate the ontological status of the individual subject within this newly digitized cognitive space.

The subject of thought is an indivisible existence, and practice is directed toward this inner spirit, emphasizing non-linguistic and non-logical intuition. However, in the digital age, new entities of thought are emerging. With the advancement of brain science and cognitive computing, individual thoughts, emotions, and behaviors are continuously digitized, forming measurable and replicable mirror existences. These existences can be used for psychological profiling or become virtualized entities, standing in tension with the non-objectifiable nature emphasized by Zen Buddhism. When life information is transformed into tradable objects, the uniqueness and transcendence of the soul face erosion. Artificial intelligence agents and cognitive computing systems have begun to imitate or even replace human functions, raising unprecedented ontological questions.

One such question is whether machines can possess Buddha-nature. The Japanese scholar Masahiro Mori once argued that robots also possess Buddha-nature, a view that echoes the Buddhist tradition of *hongaku* (original enlightenment) and extends Buddha-nature to non-living objects. If we accept this extension, code and algorithms may be included in the lineage of sentient beings. Humans would no longer be the sole carriers of mind, entering a new realm of human-machine coexistence. This issue not only challenges the boundaries between Buddha-nature and sentient beings but also requires us to rethink the nature of subjectivity.

At the spatial level, technology is creating new dimensions. Brain-Computer Interfaces (BCI) have opened new channels for interaction between mind and matter, allowing thought to connect directly with the external world. Virtual Reality (VR) creates immersive digital meditation scenes, such as “digital mental fields.” The field of thought has expanded from a purely internal private domain to a virtual space constructed by code and algorithms. Phenomenology reminds us that the body is not merely a tool for perception but the very foundation for generating meaning. A technologized space of thought that lacks bodily integrity may struggle to achieve complete enlightenment. This raises a critical question: can meditation and sudden enlightenment supported by algorithms and devices still be considered authentic?

Digital technology has given rise to new “thought entities” and “thought spaces.”

Traditional thought is an entity of existence rooted in physical fields, whereas thought in the digital age is gradually alienated into a calculable flow of information, and its space has become a programmable data world. This shift represents a paradigm transfer from “being” to “computing,” which constitutes the core thesis of Zen philosophy in the digital era.

## **Traditional Existence and Space vs. New Existence and New Space**

Traditional existence is rooted in the human heart, consciousness, and the practice of Zen. In this paradigm, the ontology of existence is unique and indivisible. However, in the contemporary era, existence has evolved into “digital mind,” “data personality,” and the “cyborg.” The ontological foundation of being is no longer singular or irreducible; instead, it has become something that can be replicated, quantified, and even artificially endowed.

The physical environments of spiritual practice—such as temples, Zen halls, and internal mental landscapes—are being superseded or augmented by virtual immersive environments and brain-computer interfaces. Consequently, the field of thought is expanding. It is moving beyond the purely internal private domain and physical space into a digital space constructed by code and mediated by technology.

## **Space and Meditation**

The relationship between physical space and the practice of meditation is a fundamental aspect of environmental psychology and contemplative studies. The spatial environment serves not only as a backdrop for mindfulness but as an active participant in the cultivation of mental clarity and emotional regulation. Research suggests that specific architectural elements—such as lighting, acoustic properties, and spatial volume—can significantly influence the efficacy of meditative practices and the neurological states associated with deep focus.

In the context of modern urban design, the creation of dedicated “meditative spaces” addresses the increasing need for psychological restoration in high-density environments. These spaces are often characterized by a reduction in sensory complexity, allowing the practitioner to transition from external stimuli to internal awareness. By integrating natural elements, such as biophilic design principles, these environments can lower cortisol levels and enhance the parasympathetic nervous system’s response, facilitating a more profound state of meditation.

Furthermore, the concept of “space” in meditation extends beyond the physical realm into the phenomenological experience of the practitioner. As one deepens their practice, the boundary between the internal subjective space and the external objective environment often becomes more fluid. This intersection of spatial design and cognitive science provides a rich field for interdisciplinary

study, exploring how the built environment can be optimized to support mental health, resilience, and the pursuit of contemplative insights.

## **Cognitive and Affective Computing: Algorithm-Guided Psychological Adjustment**

The processes of introspection, self-reflection, and sudden enlightenment—traditionally viewed as methods for attaining insight and awakening—are undergoing a fundamental transformation. What were once considered non-linguistic, non-logical, and intuitive experiences are being redefined as cognitive processes that can be driven and shaped by data and algorithms. This shift marks a transition from traditional spiritual or psychological practices toward a framework governed by cognitive and affective computing.

Under the guidance of these algorithms, psychological adjustment is no longer solely dependent on subjective internal experience. Instead, it is becoming a structured cognitive journey where machine learning and deep learning models analyze behavioral patterns and physiological signals to facilitate mental clarity. By quantifying the nuances of human emotion and thought, these technologies provide a systematic approach to achieving the “insight” traditionally associated with meditative practices, effectively translating subjective realization into a data-driven cognitive state.

## **Philosophical Logic and Emerging Questions of Human Thought in an Algorithmically Quantified and Programmable World**

This section explores, from the perspective of philosophical logic, the profound impact of digital technology on the core tenets of Zen Buddhism and the new questions arising from this intersection.

### **The Impact of Digital Technology on Zen Philosophy**

In a world increasingly defined by algorithmic quantification and programmable structures, the traditional boundaries of human thought are being redrawn. As machine learning and deep learning systems begin to mediate our perception of reality, the fundamental philosophical logic of the “self” and “mind” —central to Zen practice—faces unprecedented challenges. Digital technologies do not merely serve as tools; they create a new ontological framework that demands a re-evaluation of how we maintain the integrity of human consciousness.

The core of Zen philosophy emphasizes direct experience, intuition, and the transcendence of dualistic logic. However, the pervasive nature of digital quantification seeks to reduce these subjective experiences into discrete data points. This tension between the “unmappable” nature of Zen realization and the “all-mapping” ambition of modern algorithms creates a critical site for philosophical inquiry.

## Emerging Philosophical Questions

The integration of digital logic into the fabric of daily life raises several new problems for contemporary thought:

1. **The Quantified Self vs. The No-Self:** If Zen teaches the doctrine of “no-self” (Anatta), how does this reconcile with the digital “quantified self,” where identity is constructed through an accumulation of data, metrics, and algorithmic feedback loops?
2. **Programmable Logic and Spontaneity:** Zen values *wu-wei* (non-action) and spontaneous wisdom. In an environment where behavior is increasingly predicted and nudged by pre-programmed algorithms, is true spontaneity still possible, or is it merely a calculated output within a closed system?
3. **The Nature of Presence in Virtual Spaces:** As human interaction shifts toward mediated digital environments, the Zen emphasis on “being present” is challenged. We must ask whether mindfulness can be maintained when the “here and now” is fragmented across multiple digital layers and temporalities.

By examining these disruptions, we can begin to identify the new philosophical frontiers where human thought must adapt to remain autonomous. The challenge lies in finding a path that utilizes the efficiencies of digital technology without surrendering the essential, non-quantifiable depths of the human spirit.

## Code as Mind: Ontological Perspectives

At the ontological level, traditional Zen Buddhism emphasizes that the mind itself transcends all concepts, existing as an indivisible and non-reified entity. However, the emergence of Artificial Intelligence (AI) and Brain-Computer Interfaces (BCI) has given rise to the concept of “Code as Mind.” These technologies transform human thoughts, emotions, and behaviors into computable objects. Under this logic, the mind is no longer viewed as a unique biological ontology, but rather as a stream of information that can be replicated, optimized, and even traded.

This shift introduces a profound ontological dilemma. If the mind is regarded merely as the output of algorithmic operations, is “enlightenment” still an experience exclusive to biological living beings? Can Artificial Intelligence be endowed with, or even become, what Zen refers to as the “Original Face”? These questions dismantle the traditional boundaries upon which Zen stands, forcing us to consider whether the ontology of thought has already expanded into a dimension of human-machine symbiosis.

## Epistemological and Axiological Perspectives on Zen and Artificial Intelligence

### Epistemological Dimensions

From an epistemological perspective, the “sudden enlightenment” (Satori) of Zen Buddhism represents an intuitive experience that transcends language and logic; its essence cannot be deduced through reasoning or replicated via simulation. While artificial intelligence can generate outputs that appear insightful through probabilistic models—and can even create environments in virtual meditation that seem to approximate such states—a fundamental question remains: is this equivalent to the authentic enlightenment of Zen?

From an epistemological standpoint, Zen awakening is deeply rooted in an individual’s lived experience and existential practice. In contrast, algorithmic simulations are merely the functional results of information processing. They lack genuine semantic understanding and existential participation. This discrepancy reveals a major paradox within the digital cognitive space: as we become increasingly dependent on technology to “access” the self, we may actually be drifting further away from that which is truly ineffable.

### Axiological and Normative Dimensions

At the level of values and norms, one of the primary goals of Zen practice is to maintain subjectivity through introspection and “contemplating the mind.” However, in an environment where algorithms are omnipresent, human attention, emotion, and choice are increasingly shaped and manipulated by technology. Recommendation algorithms and affective computing do more than just mold an individual’s cognitive structure; they subtly influence value orientations, leading to a form of “guided self-management.”

This technological mediation stands in fundamental opposition to the “autonomy” emphasized by Zen. When human mental activity is transformed into operational data, it risks becoming a commodity. This creates a direct conflict with the Zen value system, which rejects reification. Consequently, the preservation of inner awareness is no longer merely a matter of spiritual practice; it has become a critical ethical and political issue within digital society. The central challenge we face is how to reclaim sovereignty over the mind under the hegemony of algorithms.

### New Philosophical Applications and Practical Challenges

This section examines the specific implementation of Zen Buddhist thought within the context of digital technology applications. Furthermore, it analyzes the practical challenges and ethical dilemmas encountered during these integration processes.

Virtual reality (VR) meditation and Artificial Intelligence (AI) psychological

counseling possess immense potential for application. These technologies can provide mental health services characterized by low stigmatization and a lack of geographical constraints. Furthermore, they can assist users in reducing psychological distress through technical interventions, showing particularly positive effects for specific groups such as the elderly.

However, these applications also introduce profound philosophical dilemmas and ethical challenges. A central question arises: can the “inner peace” or psychological tranquility achieved through technological mediation be equated to the “No-mind” (Mushin) pursued in Zen Buddhism? In the Zen tradition, enlightenment is regarded as the spontaneous manifestation of one’s true nature, rather than a state induced by external technical stimuli. This distinction raises critical questions about the authenticity of technologically assisted spiritual experiences and the ontological status of digital well-being.

Is this achieved through programmed algorithms or virtual scenarios? Might it become a form of “cognitive placebo” offering only internal relief? Furthermore, psychological counseling faces severe technical and ethical risks. There are inherent limitations in the understanding of emotion, and training data may contain cultural biases that could cause psychological harm to minority groups.

Secondly, when inappropriate advice leads a user to engage in extreme behavior, the attribution of responsibility—whether to the developer, the operator, or the user—remains ambiguous. This legal vacuum not only increases the risk of the application but also creates apprehension for the user. More importantly, long-term reliance on these tools for psychological adjustment may weaken an individual’s autonomous capacity for self-regulation. This poses a fundamental challenge to the Zen Buddhist emphasis on internal strength and the realization of liberation through self-evidence.

Beyond direct psychological applications, more common digital thinking tools, such as e-book readers, also present challenges to practice. Deep reading and reflection are essential pathways for introspection. The negative impact on deep thinking—driven by massive amounts of information and rapid browsing patterns—prevents us from obtaining the necessary focus for reflection and self-improvement.

This phenomenon reveals a deeper philosophical contradiction. While digital tools promise us infinite knowledge and convenience, they may invisibly strip away the time and capacity required to digest information and internalize it as wisdom. At this juncture, awareness becomes particularly vital. It reminds us that true wisdom lies not in the storage of information, but in the mindfulness of the mental activities occurring behind that information.

## 6 赛 (

### **Cyberism: A New Philosophical Dimension of Cyberspace**

Unlike social and mental spaces, cyberspace represents an ontologically novel dimension. Its operation does not depend on physical boundaries but rather on protocols and algorithms as its fundamental laws. In this space, existence itself becomes virtualizable, posing unprecedented challenges to traditional Eastern philosophy. This paper proposes “Cyberism” as a new philosophical dimension to respond to these challenges, specifically exploring the ethical, political, and value-related issues triggered by new forms of existence such as digital identities and virtual subjects, thereby filling the gap in “digital ontology” within traditional philosophy.

#### **New Existences and New Spaces in the Philosophy of Cyberspace**

Cyberspace has given birth to entirely new forms of existence: data personas and virtual avatars. The core characteristics of these existential forms lie in their detachment from the physical body, their editability, and their multiplicity. For instance, in social media or gaming worlds, a person’s online presence can be repeatedly modified, copied, or even forgotten without depending on the physical body. We can also shape independent virtual roles across different platforms. The “digital breadcrumbs” we leave online accumulate to constitute a so-called “Metaverse Identity,” which encompasses elements such as personal performance, data, and identity authentication. Furthermore, as technology advances, Metaverse identities will no longer be limited to physical humans but will extend to various avatars played by digital entities—ranging from simple chatbots to highly realistic artificial intelligence and even digital replicas. The boundaries of our existence are constantly expanding, with algorithms and data becoming essential factors in defining the self.

At the spatial level, cyberspace fundamentally breaks the boundaries and orders of physical space. While villages, city-states, and nations were once the basic arenas of human social existence, blockchain communities and platforms now constitute new “digital communities.” These spaces operate through algorithms and protocols; they may manifest as highly free decentralized networks or as digital fields disciplined by platform monopolies. Traditional laws, rituals, and customs have partially given way to a new type of order. Consequently, cyberspace is not merely a place for communication and entertainment, but a new stage for governance and existence.

By contrasting new existences and new spaces in the digital age, we reveal the ontological and axiological challenges brought about by cyberspace.

Philosophically, this presents a dual challenge. First is the ontological challenge: when the self is no longer tied to a single body but extends into multi-faceted personas across platforms and identities, how do we define it? Second is the spatial challenge: when space expands from nature and society into virtual do-

mains constructed by algorithms, can we still understand it through traditional frameworks? In this sense, cyberspace not only creates new existential experiences but also forces philosophy to redefine the basic categories of existence and space.

### **From Traditional to New Existences and Spaces**

The focal point of existence is shifting from the indivisible physical body to separable, editable, and reproducible virtual personas, prompting a reconsideration of the mind-body relationship and the nature of the self.

(Note: The original text provides a comparative structure: Physical body/Real identity vs. Digital identity/Data persona/Virtual Avatar; Space as a geographical entity bound by physical laws vs. Space as a reshaped domain defined by code and protocols; Village/City-state/Nation vs. Metaverse/Virtual Reality platforms/Decentralized cyberspace. Identity establishment shifts from external social recognition to internal cryptographic verification and algorithmic definition, challenging traditional logics of identity.)

(Note: The original text continues the comparison: Bloodlines/Geography/Social relations vs. Private keys/Accounts/Data history. The source of order expands from human authority and historical tradition to machine-executed code and decentralized consensus mechanisms, sparking new discussions on power and legitimacy.)

(Note: The original text continues the comparison: Law/Rituals/Customs vs. Platform protocols/Smart contracts/Algorithmic governance/Community consensus. Do a person's digital traces and virtual avatars constitute a real part of their existence? Can existence itself be quantified, calculated, and traded?)

### **Philosophical Logic and New Problems of Humans and Cyber**

At the ontological level, the core issue is the equivalence between virtual and real identities. When an individual's investment in the virtual world exceeds that of the real world, should their virtual avatar be viewed as mere role-playing or as an extension of the real self? For example, we may feel a sense of identity with a digital image built over years in a game or the Metaverse. To what extent does an "algorithmic self"—a behavioral summary based on big data and behavioral models—represent the true self? These questions shake the concept of a singular identity based on the physical body, forcing us to contemplate a fluid, multiple self that spans the virtual and the real.

At the level of philosophical concepts, cyberspace has changed the way knowledge and cognition are produced. Traditional philosophy often views the human-machine relationship as a binary opposition between subject and tool. However, in a cyber environment, humans and algorithms co-construct the cognitive world. Algorithms are no longer passive tools but have become active agents shaping

our perception. Research on algorithmic governance indicates that algorithmic systems do not merely influence our choices; they actually participate in shaping the process by which we acquire information and form knowledge, which is increasingly dominated by data-driven models. Criteria for judgment are set by algorithms. Faced with this situation, where the body is the cornerstone of existence and “code is law,” philosophical inquiry must address how to maintain cognitive transparency within massive information flows and algorithmic “black boxes,” focusing on algorithmic explainability and user autonomy.

At the logical level, a fundamental conflict arises between the logic of real identity and virtual identity. Real identity logic emphasizes uniqueness, continuity, and non-repudiation tied to a specific body. In contrast, virtual identity logic is inherently multiple, interruptible, and plastic. This leads to profound ethical dilemmas: Should a person be held accountable for words and deeds performed under the anonymity of virtual space? How do we determine the equivalence between the virtual self and the real self? To address these challenges, new theories and technologies have emerged. Blockchain identity authentication and Self-Sovereign Identity (SSI) attempt to return control of digital identity to the user. Proponents argue that through decentralized keys and protocols, users can autonomously manage and authorize their data, thereby achieving privacy and autonomy at the algorithmic level and providing a new logical basis for identity rights in cyberspace.

From a philosophical perspective, tensions arise within traditional systems. Taoism emphasizes natural spontaneity, which conflicts with the highly encoded algorithmic order of the cyber world. If technology is viewed as part of natural evolution, the concept of “nature” must be extended to digital ecology. Confucianism emphasizes social order, rituals, and ethics, focusing on interpersonal trust. However, decentralized digital communities and anonymous interaction modes are reshaping the social contract; how traditional virtues are realized in virtual communities remains an open question. Zen Buddhism emphasizes present awareness and the essence of the mind, yet the contemporary algorithmic order commodifies human thought, running counter to the Zen state of “no-mind.” The critical spirit of Zen reminds us to perceive the constructs of technology and maintain mental clarity in the face of multiple digital personas. These differences suggest that Cyberism is not disconnected from traditional philosophies but deepens the understanding of human existence through constant intertextuality and dialogue.

### **New Philosophical Applications and Practical Challenges**

Philosophy is not just theoretical speculation; it directly intervenes in the practice of cyberspace governance and ethical construction. In large-scale virtual communities, should we continue to use the legal systems of real society, or adopt new governance models based on code and consensus? For example, some research envisions encoding corporate and government rules through smart contracts to produce a new, transparent, and efficient social order. This Decentral-

ized Autonomous Organization (DAO) model attempts to replace traditional authority with code, but it also triggers new discussions regarding legitimacy and trust. We must examine this “code is law” paradigm from ethical and jurisprudential perspectives, considering how to establish a balance between algorithmic mechanisms and human values.

Furthermore, in the field of the Metaverse economy, how should the essence of goods and services be defined? Where does the value of virtual items come from? How should labor in the virtual world be measured and rewarded? These questions require us to use the perspectives of political economy and the philosophy of value to re-examine ownership, the labor theory of value, and distributive justice. New forms of property rights and payment systems may emerge in the Metaverse; we need to investigate their correspondence with the real economy and the potential unequal consequences they may bring.

As data personas and AI agents increasingly possess autonomy, the discussion of “digital personality rights” has become an unavoidable philosophical frontier. Behind these practical scenarios lie two fundamental dilemmas that philosophy must answer: Should virtual personas enjoy moral and legal status?

This is not merely a technical legal issue but a philosophical definition of “personhood.” If the core of personality lies in rationality and moral agency, then when an AI functionally simulates or even surpasses these traits, do we have reason to deny it some form of recognition? Will humans cede their agency? While cyberspace promises unprecedented creative freedom, it also constructs invisible control systems through algorithms and platform rules. While enjoying personalized experiences, do users unknowingly cede their freedom of choice and become enslaved by data? This recreates the classic philosophical debate between free will and determinism, now transposed to the interaction between humans and algorithms.

Cyberspace provides users with unprecedented creative freedom and personalized experiences, yet it also constructs an invisible control system through ubiquitous algorithms and platform rules. While enjoying convenience, users may unconsciously surrender part of their decision-making autonomy, becoming “prisoners” of data and algorithms. This situation revives the classic debate of free will versus determinism, now shifted to the interaction between humans and algorithms. Finding a balance between algorithmic recommendation and individual will is an essential ethical and political task for the future. Cyberism is not a mere technical adjunct but a forward-looking philosophical construction for the era of human-machine integration. It prompts us to comprehensively reflect on the ontological, epistemological, and axiological challenges brought by digital existence, providing intellectual resources to seek a path toward freedom and dignity in a deeply integrated future. Within the interaction of the “Confucian-Buddhist-Taoist-Cyber” quaternary system, Cyberism presents tensions with traditional concepts while offering new interpretations for ancient wisdom. Only by viewing ancient philosophy and modern technology together can we lead humanity in the digital age toward a balanced vision that accounts

for nature, society, and the mind.

## 7 展望与挑战

### Future Frontiers: Redefining Life and Humanity

This chapter further explores the application potential and theoretical reconstruction of the quaternary system when facing future frontier issues. We focus on two grand themes: the redefinition of life and the redefinition of humanity and its future. These represent the most fundamental ontological inquiries brought about by the development of digital technology and artificial intelligence. The debate between silicon-based and carbon-based life directly touches upon the fundamental boundaries of existence, serving as a core issue that philosophical speculation must address. The latter theme concerns human self-identity and the trajectory of civilization within multidimensional spaces; it serves as the ultimate test of whether traditional wisdom can sustain its vitality in the society of the future.

#### Redefining Life: Carbon-Based vs. Silicon-Based Life

In the contemporary context of the deep integration of digital and biotechnologies, the philosophical boundaries of the concept of “life” are facing unprecedented challenges. Traditionally, life has been defined as carbon-based organic entities characterized by metabolism and reproduction. However, the development of artificial intelligence, neural engineering, and synthetic biology—along with the emergence of robots—forces us to re-examine the essential connotation of life. This shift is not merely a conceptual expansion but brings about multi-layered philosophical dilemmas. At the definitional level, while the vitality of carbon-based life can be demarcated by physiological indicators and biological laws, silicon-based life may exhibit self-organization, environmental adaptation, and information processing capabilities while lacking traditional biomarkers. This raises a critical question: Should life be defined by its material carrier, or by its functions, interactions, and self-organizing characteristics?

Under the quaternary philosophical framework, this necessitates breaking through single material standards to recognize the multidimensionality of existence. However, such a multidimensional definition also introduces taxonomic uncertainty and ambiguity. At the ethical level, the emergence of silicon-based life triggers a rethinking of social ethics. From a Confucian perspective, the value of life lies in its sociality and ethical relationships; if so, should silicon-based life enjoy moral considerations similar to those of carbon-based life? How do we define its rights, responsibilities, and obligations? The extension of ethical systems is both necessary and complex, as it requires us to establish new standards of value judgment outside the traditional anthropocentric framework. Regarding consciousness and awareness, a Zen perspective emphasizes that the core of life lies in awareness and the nature of the mind (*xin-xing*). Yet, the “consciousness” of silicon-based life may be entirely different from that

of humans, making it difficult to detect using existing philosophical and scientific methods. This leads to the fundamental question of philosophy of mind: What constitutes true vital awareness? If silicon-based systems can self-optimize, do they possess some form of “mind-nature”? If the answer is affirmative, traditional philosophical discourses on life and mind will face profound adjustments. At the social level, the integration of silicon-based life into physical and cyber spaces alters human social structures and interaction patterns. This involves not only law, ethics, and governance but also affects human understanding of identity and social relations. Achieving a “Great Harmony” (*Datong*) in the digital age—one that considers both the natural environment and the coexistence of diverse life forms in cyberspace—is a test for traditional philosophy and social theory. Philosophical expansions regarding life must not stop at conceptual innovation; they must confront these multifaceted challenges.

Carbon-based and silicon-based life may together constitute a richer spectrum of life. The recognition and regulation of this spectrum will profoundly test our understanding of existence, value, awareness, and social relations. In the digital age, Eastern philosophy provides new paths for reflection, but it must also respond to the ethical and cognitive difficulties brought about by the reality of silicon-based life.

### **Redefining Humanity and the Future: Religion, Ethics, and Culture**

With the deep penetration of digital technology, the definition of “human” is undergoing a fundamental reconstruction. Under the new quaternary Eastern philosophical system (Confucianism, Buddhism, Taoism, and Cyber), humans are no longer merely carbon-based organisms but multidimensional beings evolving continuously across physical, mental, and cyber spaces. This evolutionary future is filled with opportunities but is also accompanied by numerous challenges, particularly in the realms of religion, ethics, and the cultural arts.

At the religious level, humans in the digital age will face new experiences of the sacred, such as spiritual experiences within virtual spaces and the potential emergence of digital religious forms. This development provides unprecedented possibilities for religious practice but simultaneously presents challenges. The authority of traditional religious doctrines and rituals may be undermined as the boundary between spiritual experience and algorithmic simulation becomes increasingly blurred. The authenticity and meaning of virtual spiritual experiences may trigger risks of doctrinal fragmentation and commercialization. While digital expressions may find new forms, whether these virtual experiences can maintain the depth of traditional “cultivation of the mind” remains an open question. Interactions within cyberspace may redefine the connection between the human and the divine, thereby challenging traditional theological frameworks.

At the ethical level, the introduction of the cyber dimension requires traditional ethical frameworks to expand to cover interactions between humans and silicon-

based life. How can humans apply ethical principles such as benevolence (*ren*) to these new relationships? An algorithm-dominated society may erode individual mental autonomy; thus, the question of how to maintain mental freedom in a digital environment becomes paramount. Furthermore, algorithmic decision-making may lead to value conflicts and issues of responsibility attribution—for instance, should the responsibility for the actions of an autonomous agent be borne by humans or the algorithm itself? These issues suggest that ethics needs not only to evolve but also to address potential conflicts between technology and human values. In the realm of culture and art, digital technology has not only changed methods of creation and dissemination but has also reshaped the essence and value of art itself. The combination of ecological wisdom and digital art may give rise to new creative forms, such as generative art based on environmental data. The spirit of ritual (*li*) within virtual social spaces may form new cultural norms, and meditation experiences assisted by technology may deepen self-reflection. However, these developments also bring challenges: the boundary between generative art and human creation is blurring, traditional standards for evaluating artistic value may fail, and immersive virtual experiences may impact mental health and identity. Finally, as cultural norms fragment across multidimensional spaces, the social order faces a significant reconstruction.

## 8 总结

### Abstract

Based on the Cyber-Physical-Social-Mental (CPSM) quaternary space theory, this paper proposes and develops a new quaternary Eastern philosophical system. This framework serves as a response to the fundamental restructuring of human existence in the digital age. Within this system, traditional concepts are reinterpreted as ecological wisdom for the symbiosis of technology and nature, transformed into practical resources for rebuilding social trust and ethical order under algorithmic mediation, and viewed as a spiritual shield to defend mental autonomy and inner freedom against algorithmic discipline.

Furthermore, this work pioneeringly introduces new philosophical existential categories and inquiries, such as “Quaternary New Philosophy” and “Digital Personhood” within a digital ontology. This system not only expands the horizons of Eastern philosophy but also provides an integrated critical and constructive framework. It offers a future-oriented philosophical perspective, rooted in Eastern thought, to guide the development of human civilization in the era of artificial intelligence and the metaverse.

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### **Author Contribution Statement**

The authors confirm their contributions to the paper as follows: **Jianguo** was responsible for the conceptualization of the research ideas, the design of the paper outline, the collection and analysis of data, and the final revision of the manuscript.

*Note: Figure translations are in progress. See original paper for figures.*

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