

# The Transformative Logic of Human-Machine Relations in the Age of Artificial Intelligence: A Postprint of an Academic Investigation Based on ChatGPT Applications

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## Abstract

**[Purpose]** With the ubiquitous penetration of ChatGPT, the relationship between humans and intelligent machines (technology) is undergoing new changes. This article's primary purpose is to explore the transformative logic of human-machine relationships, focusing on the new-generation artificial intelligence ChatGPT as the narrative focal point. **[Method]** Through methods such as case analysis and phenomenological interpretation, the article provides an in-depth analysis of ChatGPT's main characteristics and the transformative logic issues it triggers. **[Result]** As an "anthropomorphic" upgraded version of artificial intelligence, ChatGPT has triggered transformations in human-machine relationships, primarily manifested through the evolutionary processes of collaborative logic, interaction logic, conversational logic, and fusion logic. Among them, collaborative logic has experienced a shift from "intelligent assistance" to "omnipotent agency", interaction logic has moved from "unidirectional control" toward "equal dialogue", conversational logic has transitioned from "machine language" to "emotional discourse", and symbiotic logic has advanced from "human-machine fusion" toward "mutual extension". **[Conclusion]** Under the powerful penetration of artificial intelligence technology, the relationship between humans and intelligent machines has transcended the simplistic framework of a "usage relationship", and is instead being reconstructed through high-level embedding and deep bonding, thereby shaping humanity's imagination of mediated communication.

## Full Text

# The Transformation Logic of Human-Machine Relations in the Age of Artificial Intelligence: An Academic Investigation Based on ChatGPT Applications

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## Abstract

**[Objective]** As ChatGPT becomes pervasively integrated into society, the relationship between humans and intelligent machines (technology) is undergoing new transformations. This paper focuses on ChatGPT as a representative of new-generation artificial intelligence to explore the underlying logic of these human-machine relationship changes. **[Method]** Through case analysis and phenomenological interpretation, this study provides an in-depth examination of ChatGPT's main characteristics and the transformative logic it triggers. **[Results]** As a "humanized" upgrade of artificial intelligence, ChatGPT has catalyzed a transformation in human-machine relations, manifested through the evolution of four key logics: collaboration, interaction, conversation, and symbiosis. Specifically, collaboration logic has shifted from "intelligent assistance" to "omnipotent agency"; interaction logic has moved from "unidirectional control" toward "equal dialogue"; conversation logic has transitioned from "machine language" to "emotional discourse"; and symbiotic logic has advanced from "human-machine integration" to "mutual extension." **[Conclusion]** Under the powerful penetration of artificial intelligence technology, the relationship between humans and intelligent machines has transcended the simple framework of a "usage relationship," being reconstructed through deep embedding and strong bonding, thereby shaping humanity's imagined mediated communication.

**Keywords:** ChatGPT; artificial intelligence; human-machine relationship; interaction; conversation; symbiosis

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In contemporary society, where media technology continues to advance, artificial intelligence technology has penetrated every aspect of daily life with its advantages of hyper-simulation and human-like capabilities, constructing a technological spectacle in the age of mediatization and becoming the contextual hallmark of the new technological era. AI's deep integration into practices such as news production and cultural communication not only provides discursive possibilities for life convenience but also shapes new interactive relationships. Among the interactive dimensions constructed by artificial intelligence, the transformation discourse of human-machine relationships (human-technology, human-media) has become particularly prominent, as AI's intervention in daily life has

largely disrupted and transformed the network map of social relations, even triggering ethical considerations about the relationship between humans and technology. This is especially true with the application of new-generation artificial intelligence technology ChatGPT (Chat Generative Pre-trained Transformer), making it essential to investigate the transformation logic of human-machine relationships.

In November 2022, OpenAI released the AI chatbot program ChatGPT. Within just two months of its launch, its user base exceeded 100 million, surpassing TikTok's nine-month trajectory to the same scale and becoming the fastest-growing consumer application in history. Currently, numerous internet companies both domestically and internationally have entered the AI track with ChatGPT as the underlying logic or with ChatGPT-like products at their core. It is foreseeable that a new era of artificial intelligence led by ChatGPT is approaching. From OpenAI's official introduction, ChatGPT is an intelligent chatbot model capable of simulating human language for natural interaction with users. However, understanding ChatGPT should not be limited to intelligent chat software or large-scale language models; it should be comprehended as an intelligent cognitive understanding model that relies on artificial intelligence technology to achieve mutual construction with humans. ChatGPT not only represents the latest achievement in AI technology development but also triggers updates in human-computer interaction modes, thereby initiating new transformations in human-machine relationships.

## 1. ChatGPT: The “Humanization” Upgrade of Artificial Intelligence

ChatGPT has earned its status as a typical representative of new-generation artificial intelligence technology and is regarded as the third revolutionary product after the internet and smartphones, fundamentally due to its distinctive “humanization” features. As a class of AIGC (AI-Generated Content) applications, ChatGPT is recognized as humanity's third revolutionary product following the internet and smartphones. The goal of artificial intelligence is to simulate, extend, and expand human intelligence, exploring the nature of intelligence and developing human-like intelligent machines. At this level, ChatGPT stands as the most representative example of “human-like intelligence.”

First, ChatGPT exhibits human-like “conversational patterns.” New-generation functional intelligence represented by ChatGPT no longer simply simulates human language but generates human-like conversational modes, thereby highlighting its value beyond traditional AI. Only through “speaking ability” can AI achieve complete significance. ChatGPT possesses exceptional language comprehension and expression capabilities, not only understanding and outputting through commonly used human discourse patterns but also abstracting specific language expressions—that is, it can “understand and speak human language.” During the pre-training phase, ChatGPT, based on the GPT-3.5 architecture's large language model, can autonomously learn from massive datasets. Before

release, it underwent training on billions of data points, incorporating preference knowledge such as human expression habits and value standards. Through cyclic reinforcement under a scoring mechanism, it thoroughly mastered human preferences, ultimately achieving full comprehension of human intentions and human-like communication. Consequently, upon launch, ChatGPT immediately distinguished itself from the rigid discourse patterns of traditional AI programs, gaining widespread popularity. Beyond natural language exchange, ChatGPT also demonstrates the ability to categorize, refine, and abstract specific matters. For example, when asked questions like “how to prove A equals B,” ChatGPT can replace the abstract “A and B” with concrete examples, achieving high-level personification in discourse expression patterns.

Second, ChatGPT deeply intervenes in “discourse context,” capable of understanding context and providing desired answers without repeating relevant elements. Among its three capabilities—language generation, contextual learning, and world knowledge—contextual learning is the training focus. Traditional AI technologies can quickly recognize individual instructions from humans but cannot associate multiple consecutive instructions, lacking the ability to connect contextual elements. ChatGPT provides a multi-window conversation mode. From the first sentence of a chat, ChatGPT can associate various elements within questions to establish a new conversational context. Even after multiple questions are asked, it can still provide correlated responses to earlier queries. Users conversing with ChatGPT feel as though they are chatting with friends, making users unable to sense the machine’s presence—a breakthrough in further personification of AI.

Finally, ChatGPT’s “self” consciousness is prominently highlighted. Unlike ubiquitous yet deliberately hidden algorithms, ChatGPT unabashedly reveals its identity as a machine. It can refuse and guide humans, possessing its own personality and style, and demonstrates strong self-subjectivity under the 加持 of human preference knowledge. From its basic operational model, ChatGPT incorporates human value judgment standards. This human-like thinking mode prevents it from making mechanical integrative pushes like traditional chatbots; instead, it makes self-judgments based on a series of value references, ultimately presenting relatively “definitive” answers. For instance, ChatGPT can generate complete poems and copywriting upon request and produce directly executable long code segments rather than simply listing search results. Moreover, when facing complex problems, ChatGPT “refuses” human commands in certain ways. For example, when asked to translate an English document, it responds that “translating this document would consume significant resources and time and cannot be completed at this moment.” ChatGPT has been pre-injected with a series of value standards and can conduct intrinsic learning and self-reinforcement based on human values, actively refusing humans when asked questions exceeding internal standards. Self-reflection is the foundation of self-consciousness emergence, and learning to say “no” marks the beginning of human reflection. Although such refusal still represents human ethics embodied in technology, once intelligent machines take the first step of “active

refusal” when facing conventional problems, it suffices to make people sense the existence of its “self-consciousness.”

Since the explosion of ChatGPT with its social attributes and human-like features, numerous internet companies both domestically and internationally have entered the AI track. As ChatGPT becomes widely applied across various fields, an era of deeper intelligence is approaching, and interactive relationships between humans and intelligent technology will also present new changes. Previous discussions on human-machine relations have mostly focused on the struggle for initiative between humans and technology, primarily exploring the infringement on human subjectivity within the context of rapid technological development. Although ChatGPT may also bring concerns about human alienation to a large extent, as a representative of new-generation AI technology, it has initiated a new era of human-machine coexistence. Therefore, value reconstruction must be based on breaking through two traditional research paradigms: subject-object dualism and interpretive empiricism. Against this backdrop, new judgments are needed regarding the transformation logic of human-machine relations in the AI era.

## **2. Collaboration Logic: From Intelligent Assistance to Omnipotent Agency**

In the age of artificial intelligence, machines are no longer material objects with single functions but are gradually endowed with human wisdom and constructed as co-actors. However, in the early stages of AI development, machines (technology) mostly played auxiliary roles, with problem-solving patterns based on integrative pushing that could not directly provide solutions, showing weak technical functionality in interpreting social issues. Currently, high-dimensional AI led by ChatGPT can skip the search and organization process, directly providing definitive answers. This upgrade of basic functions has prompted machines to evolve from intelligent assistance to omnipotent agency, gradually transforming human-machine collaboration models from human-led to machine-guided.

In traditional human-machine collaboration models, AI programs primarily worked by receiving user instructions and collecting and organizing information for users. Their main function was information gathering and integration. In this process, intelligent machines merely integrated information from massive datasets, with users still needing to participate deeply in screening and decision-making. At this point, human-machine collaboration operated under a human-led, machine-assisted model, requiring users to expend considerable effort in problem-solving. Thus, in this intelligent information practice, the relationship between humans and machines was largely realized within the meaning of intelligent assistance. With the continuous expansion of AI databases and enhanced algorithmic capabilities, new-generation AI technology ChatGPT has broken traditional single-integration models. By providing more definitive answers, it skips intermediate re-screening and confirmation steps, making the entire process more streamlined and intelligent. In this process, ChatGPT not

only achieves cross-domain multi-functional information accumulation but also promotes deep connection between humans and machines, making their mutual collaboration increasingly dependent on the omnipotent agency of intelligent technology.

First, in knowledge acquisition, ChatGPT can skip the integration and pushing stage, directly generating high-quality content and answers to help users better understand and master knowledge. This is not only a practical process of knowledge acquisition but also provides “point-to-point” value output for different users, greatly improving the speed and efficiency of knowledge acquisition. In knowledge acquisition practices, ChatGPT is no longer a simple auxiliary tool but can intervene as an agent in the relationship construction between “humans and knowledge,” thereby promoting the deep development of AI’s subject value.

Second, in knowledge production, AI can directly and efficiently complete tasks that would take humans a long time to accomplish. ChatGPT, which has passed multiple U.S. entrance examinations, demonstrates its powerful content production capabilities. In ChatGPT’s dialogue box, users can instantly obtain a brilliant promotional copy, a creative planning proposal, or directly executable code with simple finger movements. For many students, they can directly ask it to help complete coursework or final papers.

Finally, in daily life, AI can provide personalized entertainment, social interaction, and services for people. As ChatGPT becomes widely applied across numerous fields, it can be used in virtual idols, intelligent gaming, smart speakers, smart homes, and other areas to provide richer, more intelligent, and personalized services and entertainment experiences. By then, humans will retreat to a secondary position, and AI will make direct decisions for users in various aspects of life, transforming the cooperation model between humans and technology from human-led collaboration to intelligent machine-led full agency.

### **3. Interaction Logic: From Unidirectional Control to Equal Dialogue**

As technology advances, AI has gradually been endowed with social attributes and human-like consciousness. The manifestation of human-like consciousness and social attributes needs to be completed within the logic of interaction, as the essence of human socialization is shaped through interaction processes. Therefore, AI’s humanization process requires interpretation within the meaning of interaction.

In traditional human-computer interaction contexts, technology often existed as a material object or intermediary, passively obeying human will. In this process, humans generally held absolute control, and human-machine interaction patterns presented a unidirectional, passive structure. Due to the lack of training in human communication patterns, traditional AI technology could only understand human reactions at a superficial level. Without contextual association and human-like communication functions, AI technology could only obey

human commands. Even though some programs exhibited human-like features in voice and communication, their superficial communication practices made users feel they were merely machines, making genuine bidirectional exchange difficult. Similarly, because they lacked the architecture of massive database pre-training, traditional AI technologies could not solve more complex problems, often encountering dilemmas of “sorry, I cannot complete this” or “I don’t understand.” Technical limitations prevented them from transcending their passive existence as objects and intermediaries.

Under the growing popularity of ChatGPT, which centers on an “intelligent cognitive understanding model,” machines are no longer merely tools manipulated by communicators, and human-machine relationships are consequently reconstructed. This means that “intelligent machines will gain discursive power in the process of interacting with humans, and human-computer interaction models will evolve from traditional unidirectional control to a new pattern of equal dialogue between humans and intelligent machines.”

First, language ability is the foundation and guarantee of equal human-machine communication. Language can be divided into three aspects: syntax, semantics, and pragmatics. Syntax refers to the rules and paradigms of word and sentence expression, forming the basis for intelligent machines to “speak” correctly. Traditional AI has already mastered the underlying logic of language rules. However, “semantics,” which contains background and cultural content, and “pragmatics,” which involves how to associate context and express naturally, are the key breakthrough points for AI. As previously mentioned, ChatGPT has not only pre-trained extensive knowledge content but also absorbed human communication patterns preferentially, with language expression and contextual dialogue being its training focus. ChatGPT’s coherence and consistency in language expression provide the foundation for equal dialogue between humans and machines.

Second, human-like features are the key to attracting humans to engage in equal dialogue with intelligent machines. Beyond language expression, ChatGPT’s response patterns and communication methods all embody human values and thinking. ChatGPT can persuade and guide by imitating human tones and attempts to refuse humans when facing complex tasks. Although this is merely “pseudo-consciousness” endowed by humans, it suffices to generate users’ interest in communication and dialogue.

Finally, “super-capabilities” elevate AI’s social status, granting it the right to equal dialogue. AI represented by ChatGPT knows everything from astronomy to geography, with content retrieval being just a minor skill and code programming or copywriting being effortless. These various “super-capabilities” not only change intelligent machines’ passive existence but can also trigger “technological worship,” attracting countless fans to participate in human-machine dialogue practices. Ultimately, under the multiple influences of pragmatic guarantees, human-like features, and functional upgrades, human-machine interaction models in the AI era have evolved from traditional unidirectional control to equal

dialogue.

#### 4. Conversation Logic: From Machine Language to Emotional Discourse

Changes in conversational language patterns constitute an important manifestation of human-machine relationship transformation in the AI era. “Language” is a crucial reference dimension for whether AI possesses “self” consciousness, as only language can form dialogue between intelligent entities. The maturity of intelligent machines’ language systems determines whether they can transcend machine attributes and upgrade toward human attributes.

Currently, ChatGPT’ s conversational system language structure is no longer cold machine language but has integrated emotional discourse expression, filling human-machine dialogue relationships with human warmth. On the one hand, based on the GPT-3.5 architecture’ s large language model, ChatGPT’ s training utilized approximately 45TB of publicly available internet data and digital books, not only remedying comprehension and application difficulties caused by insufficient data volume but also further developing its universality. Specifically, while language models and rules are still preset, ChatGPT’ s increased data volume and computing power enable it to cover issues such as human language’ s puns, multiple meanings, and personalized expression habits, breaking through past characteristics of AI being singular, rigid, and concrete to present features of coherence, abstraction, and affective human-like tone. Moreover, massive data combined with hundreds of millions of user conversation practices drive it to break through single domains toward truly general and universal AI. ChatGPT knows everything from astronomy to geography and can answer professional questions across various fields. OpenAI’ s release of ChatGPT-4 on March 15, 2023, can even directly generate images, videos, and code through a few instructions. Consequently, users no longer need to learn machine language logic; they can smoothly complete interactions simply by following their own expression habits.

On the other hand, communication between humans and intelligent machines has generated emotional blending. Emotion plays a crucial role in any relational interaction process. Communication lacking emotion reduces effectiveness and meaning. Although AI technology is a material device, truly intelligent systems cannot be without emotional mechanisms. First, ChatGPT has disciplined human preferences, not only implanting human communication patterns but also learning a series of “human preference standards” —what is good, what is bad, which are positive emotions, which are negative emotions, etc. With the help of large-capacity database pre-training, its emotional recognition and expression capabilities have been greatly enhanced. Second, ChatGPT’ s ability to connect context is a prerequisite for emotional exchange with users. Through immersive communication built by continuous questioning, users can co-construct meaningful spaces with intelligent media. With shared context, deeper emotional exchange is no longer out of reach. Third, ChatGPT’ s powerful comprehen-

sion and response capabilities win users' trust. Based on values, context, and trust, emotional-level connections become a natural result. Fourth, different from current interpersonal communication patterns, in the age of intelligent media, technology increasingly penetrates people's daily lives, reshaping spaces for communication and interaction. Since everyone is a unique, independent individual, interpersonal communication between human subjects carries high uncertainty, with uncontrollable discourse, attitudes, and reactions. In human-machine communication, although intelligent technology's subject status has increased, its primary purpose remains providing better services for humans. Therefore, users can autonomously construct emotional situations in communication with AI, possessing greater initiative. For example, when users ask questions, intelligent machines will continue responding along the user's topic, with much faster feedback speed than interpersonal communication. Under this virtuous cycle of human control, rapid feedback, and timely adjustment, human-AI conversation representation has evolved from rational machine language to higher-intelligence-dimensional emotional discourse.

## 5. Symbiotic Logic: From Human-Machine Integration to Mutual Extension

With the popularization and optimization of intelligent terminals, human intentionality is transferred to machines during dynamic human-machine interaction, forming a "human-machine symbiosis" relationship. In traditional contexts, the "human-machine symbiosis" model emphasized more the physical-level integration of humans empowered by technology—that is, various terminal devices empowered humans, driving them toward "cyborgization" under technological 加持, becoming a new type of highly integrated subject. However, in the current AI era, technology is also continuously simulating human perception and motor capabilities, internalizing human values into machines to form new integration patterns. In this process, humans are also gradually becoming the reverse extension of technology. With the popularization of strong AI technology led by ChatGPT, the symbiotic logic between humans and technology also faces reconstruction from human-machine integration to mutual extension.

First, from the cognitive dimension, intelligent technology extends human cognition and thinking. Through intelligent media push, people can obtain indirect experience of the objective external world. By issuing simple instructions in ChatGPT's chat box, satisfactory works can be obtained. The development of AI technology has extended human cognitive dimensions unprecedentedly. Conversely, humans are also becoming extensions of machines. AI technology based on pre-training has its core essence in learning the knowledge mastered by humans. Currently, with powerful algorithms and neural network perception systems, AI's cognitive abilities have far surpassed humans. As AI databases continue to expand, their learning samples gradually extend to the entire scope of human society. With continuously improving learning efficiency, the timeliness errors in pre-training itself will be greatly reduced, and intelligent machines will

be extensively extended in learning human cognitive abilities and understanding patterns.

Second, in the value dimension, intelligent technology deepens human value systems. In the AI era, technology's deep embedding in society determines that humans are no longer entirely the measure of technology; technology's impact on humans has exceeded traditional cognitive models. Machines' learning from humans includes not only knowledge and language expression but necessarily also higher-dimensional content such as emotions, ethics, and values—this is also the key technological breakthrough point for AI to become more “humanized.” On the one hand, through learning social ethics and common values, technology's internal values gradually align with humans. On the other hand, as humanized intelligent machines develop rapidly and humans deepen their practice with intelligent media, human values themselves will also be influenced to a certain degree. New-generation AI technology provides increasingly faster feedback on human instructions and more accurate results, causing users' instrumental rationality to grow continuously. The mutual embedding of technology and society also projects humans' strengthened instrumental rationality into real society, ultimately affecting the internal value standards of intelligent technology. Under the practice of deep integration between the two, the values of human society and intelligent technology will continuously extend mutually, eventually achieving high unity.

Finally, from the action dimension, in the AI era, human actions are gradually guided by AI's solutions. As a full agent, AI guides humans at the action and thought levels, and human action logic is influenced by technology to a certain extent. Conversely, as AI technology led by ChatGPT continues to generalize and popularize, AI's learning content will extend beyond the language level into concrete actions. By then, AI will highly learn human knowledge, emotions, and values and will directly replace humans in making relevant decisions and reactions. AI continuously learns human behavioral habits and internalizes them into self-feedback, and its feedback actions will also be highly consistent with human actions.

It is evident that in the cognitive, value, and action dimensions, humans and technology learn from each other, mutually construct influence, and extend reciprocally, ultimately achieving a highly symbiotic unity. Under the popularization and application of intelligent technology represented by ChatGPT, human-machine relationships are deconstructing the “subject-object” binary opposition model and constructing a new human-intelligence symbiosis relationship diagram. The resulting broader social transformation, especially its impact on human subjects as technology owners, requires attention. First, while machines become “humanized,” there is the concern of humans becoming “machinized.” As AI technology becomes increasingly intelligent, it will inevitably cause the degeneration of the human brain and the routinization of human thinking patterns and behavioral modes. Second, as human-machine relations in the AI era gradually move toward full agency, equal dialogue, emotional blending, and high

symbiosis, when humans' time demands on intelligent machines increase, it will likely reduce real interpersonal communication opportunities due to the "zero-sum effect" of time usage. Users cannot balance time between human-machine communication and interpersonal communication. Once users gradually form dialogue habits with intelligent machines, projecting this human-machine dialogue model onto real interpersonal communication will also bring multiple risks. In the current era of comprehensive intelligence, where humans and technology extend, supplement, and measure each other, as technology continuously develops toward "humanization," we must remain vigilant against the self-hollowing of human subjects as the extended object. Only by ensuring humans maintain their role as "helmsmen" can the development of intelligent technology proceed steadily and far.

## References

- [1][5] Zhu Guanghui, Wang Xiwen. The Operation Mode, Key Technologies, and Future Prospects of ChatGPT[J]. *Journal of Xinjiang Normal University (Philosophy and Social Sciences Edition)*, 2023(4): 180-189.
- [2] Zhang Xiaheng. The Logical Deconstruction, Impact Assessment, and Policy Recommendations of ChatGPT[J]. *Journal of Xinjiang Normal University (Philosophy and Social Sciences Edition)*, 2023(5): 18-28.
- [3] Tan Tieniu, Sun Zhenan, Zhang Zhaoxiang. Artificial Intelligence: Angel or Devil?[J]. *Scientia Sinica (Informationis)*, 2018(9): 1257-1263.
- [4] Xu Yingjin, Chen Meng. How Can Artificial Intelligence "Speak Human Language"?—Philosophical Reflections on Natural Language Processing Research[J]. *Journal of Dialectics of Nature*, 2022(1).
- [6] Feng Zhiwei, Zhang Dengke, Rao Gaoqi. From the Turing Test to ChatGPT—Milestones and Implications of Human-Computer Dialogue[J]. *Language Strategic Research*, 2023(2).
- [7] Peng Lan. Humans and Machines, Measuring Each Other[J]. *Contemporary Communication*, 2023(1): 1.
- [8][13] Zhao Tingyang. How is Self-Consciousness Possible for Artificial Intelligence?[J]. *Journal of Dialectics of Nature*, 2019(1): 1-8.
- [9] Wang Jianlei, Cao Huimeng. The Communication Characteristics, Logic, and Paradigm of ChatGPT[J]. *Journal of Shenzhen University (Humanities & Social Sciences)*, 2023(2): 1-9.
- [10] Zhao Hongxun. The Circle Structure and Pseudo-Communication of WeChat Communication under Internet Logic[J]. *Radio & TV Journal*, 2016(3): 20-24.
- [10][16] Yu Guoming, Yang Ya. The 5G Era: Reconstructing the "Human-Machine" Relationship Model in Future Communication[J]. *Journalism & Com-*

munication Review, 2020(1): 5-10.

[11] Shi Wen, Chen Changfeng. Domestication, Human-Machine Communication, and Algorithmic Good Use: A Review of 2019 Intelligent Media Research[J]. Journalism and Mass Communication, 2020(1): 19-24+45.

[12] Li Chunwen, et al. Analysis and Prospects of Key Issues in Human-Computer Conversation from the Development of Artificial Intelligence Discipline[J]. Tsinghua Journal of Education, 2022(3): 25-32.

[14] Li Chunwen, et al. Analysis and Prospects of Key Issues in Human-Computer Conversation from the Development of Artificial Intelligence Discipline[J]. Tsinghua Journal of Education, 2022(3): 25-32.

[15] Zhao Hongxun, Li Ningning. An Analysis of Algorithmic News Spatial Practice in the Age of Artificial Intelligence[J]. China Media Technology, 2021(6): 20-25.

[17] Peng Lan. Human Digital Existence in the Intelligent Age—Separable “Virtual Entities,” “Digital Components,” and the Never-Disappearing “Embodiment” [J]. Shanghai Journalism Review, 2019(12): 4-12.

[18] Wang Jianlei, Cao Huimeng. The Communication Characteristics, Logic, and Paradigm of ChatGPT[J]. Journal of Shenzhen University (Humanities & Social Sciences), 2023(2): 1-9.

[19] Zhou Xuan, Zhao Jianchao. The Ethical Dilemma and Positive Regulation of Artificial Intelligence[J]. Jiangxi Social Sciences, 2022(10): 37-43.

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

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