

## Media Technology and Media Thinking (Post-Print)

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### Abstract

Media technology, in other words, is information technology, primarily referring to the informatization technologies that transport relevant information into the domain of communication media. From the current perspective, media that have been utilized by people encompass multiple dimensions, including language media, broadcast media, television, and internet media, while media technology also involves various types, such as printing technology, papermaking technology, broadcast technology, and quantum media technology. Thinking constitutes the exploration and analysis of relevant issues conducted by people during social production to achieve objectives; it represents a process of human cognitive activity, encompassing inspirational thinking, abstract thinking, and imagistic thinking. In light of the development status of China's media economy, the future development of the media economy constitutes a systematic strategy. This paper focuses on investigating media technology and media thinking.

### Full Text

#### Abstract

Media technology, in essence, is information technology—primarily referring to the informatization technologies that transport relevant information into the field of communication media. Throughout history, applied media have encompassed various forms, including language media, broadcast media, television, and internet media, while media technologies have involved diverse types such as printing technology, papermaking technology, broadcast technology, and quantum media technology. Thinking represents the process through which people explore and analyze relevant issues to achieve goals during social production, encompassing inspirational thinking, abstract thinking, and visual thinking. In light of China's media economy development, future media economic growth constitutes a systematic strategy. This paper focuses on exploring media technology and media thinking.

**Keywords:** Media Technology; Media Thinking; Convergence

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The development of communication media is influenced by multiple factors, which can be broadly categorized into two aspects. First, from the actual development of media, the rational application of media technology serves as the fundamental driving force for advancing communication media. Second, from the perspective of economic and social development, people's media thinking constitutes a key element for media development. For communication media, these two factors form an integrated whole with close interconnections. Moreover, the driving force of communication technology does not act upon media directly; rather, its effectiveness stems from society's deeper understanding of media technology. In other words, media professionals' conceptualization of media thinking determines how media technology's influence manifests. People's media thinking does not directly guide media development but rather operates based on the depth of media technology's impact on media forms. Based on the current state of China's communication media development, while technology aligns with contemporary demands and China qualifies as a media powerhouse, its media capabilities remain relatively underdeveloped. Numerous factors contribute to this phenomenon, with the most prominent being the failure to establish modern media thinking concepts grounded in practical realities. This reveals that the formation of scientific media thinking concepts, the realization of media guidance capacity, and the application of media technology exist in a state of integration. Therefore, intensifying research on media technology and media thinking is essential for facilitating further development and operation of communication media.

## 1. An Elaboration on Media Thinking Modes and Types

Thinking generally refers to the process through which people explore and contemplate relevant issues to achieve specific objectives in social life. Scientific and rational thinking concepts help people perceive the world correctly and follow inherent patterns, representing the key to avoiding errors and achieving success. For China's communication media, integration with scientific media thinking is essential to fully realize media value.

### 1.1 Internet Communication Thinking Modes

Within the system of communication thinking, internet communication thinking represents a distinct mode of communication thought. However, because internet media lack clear boundaries, internet communication thinking is also termed global network thinking. Typically, network communication approaches

leverage the advantages of computer and internet technologies to rationally predict future developments. Currently, based on the navigational nature of internet media thinking, it provides effective guidance for multiple and complex internet media behaviors, thereby enhancing operational efficiency and better demonstrating the value of internet media within the socio-economic context to achieve corresponding objectives.

Since the turn of the twenty-first century, experience from internet media practice and understanding of internet media nature have revealed that the internet media thinking system comprises several integrated components: “Internet Plus” media thinking mode, big data media thinking mode, transparent media thinking mode, and cloud computing media thinking mode.

**“Internet Plus” Media Thinking Mode.** From the perspective of this approach, its characteristics manifest as follows: on one hand, it constitutes a mandatory media thinking method in China and a state-led strategic media thinking mode, possessing a new form that can deepen media integration. The “Internet Plus” media thinking mode demonstrates clear functionality, representing a highly comprehensive thinking system that aggregates internet media thinking with big culture thinking and new economic thinking. In the current era, the “Internet Plus” communication thinking mode exhibits distinct contemporary features. It is not merely a product of economic development but also an outcome of socialism with Chinese characteristics. Its driving force for self-development lies in optimizing internet media resource capacity during social development, manifesting internet media’s cultural power to ensure that internet media influence is fully implemented in socio-economic development.

**Big Data Media Thinking Mode.** This approach primarily utilizes relevant data to effectively analyze operational patterns of phenomena for planning and decision-making. In essence, big data media thinking represents a mode of contemplating and exploring big data behavioral patterns. Its characteristics include the efficient and high-quality application of information resources, facilitating authentic representation of information to provide sound foundations for subsequent decision-making. Furthermore, it fosters innovation among personnel, establishing novel concepts and achieving stable domain development through innovative models and new technologies.

**Transparent Media Thinking Mode.** The transparent internet communication approach mentioned here primarily refers to an internet marketing method and the characteristics derived from such marketing. Compared with modern commercial marketing models, traditional commercial marketing often emphasized distribution channels, operating on the principle that customers buy whatever stores sell, rather than adhering to the customer-first principle. Against the backdrop of continuous internet media development, internet media e-commerce has gradually become the main entity for commodity exchange, characterized by product quality, attributes, and pricing. This reality has given rise to transparent media thinking methods. Transparent media thinking aligns with current social development trends in both communication channels and con-

cepts, gaining public recognition. For e-commerce itself, its emergence has not only significantly improved social purchasing efficiency but has also established internet consumption models like Taobao online shopping as the consumption pattern for contemporary youth.

**Internet Zero-Distance Media Thinking Mode.** The zero-distance concept originated from a news live program established several years ago by Jiangsu Radio and Television, a traditional media outlet. Since its broadcast, the program has attracted widespread attention for its focus on people' s daily lives and generated substantial economic benefits. Although the Zero Distance program was created by traditional media, it possesses independent characteristics: its program requirements align with internet communication thinking modes. Based on this foundation, the program concept has been adopted to research and analyze internet media thinking patterns. Over time, this has evolved into a new thinking mode—zero-distance media thinking. The features of this approach include: (1) achieving the integration of information transmission immediacy and proximity; (2) bridging the distance between communication media and audiences to realize truly efficient information dissemination; and (3) intensifying information propagation to increase societal attention to civic journalism concepts. This article elaborates on how this new internet communication thinking mode can deepen human relationships through novel internet thinking dissemination methods and program transmission experiences, enabling further improvement and innovative development of internet communication thinking modes based on existing internet media thinking frameworks. Concurrently, internet communication thinking modes related to the program will also exhibit new characteristics.

**Cloud Computing Media Thinking Mode.** Cloud computing refers to the integration of various internet data resources through computers to maximize resource sharing. Regarding cloud computing media thinking, it typically optimizes internet data resources through this thinking mode, transforming them into usable resources and delivering them to different users. The characteristics of cloud computing media thinking include: first, extremely high accuracy, as cloud computing consolidates substantial information; second, broad service coverage, enabling user service across extensive regions; and third, rapid information resource flow efficiency.

## 1.2 Media Thinking and Thinking Modes

In media economic community theory, media thinking is explicitly elaborated as a relatively specialized thinking mode for internet communication media. Typically, people cognize the attributes of phenomena based on their professional knowledge and the current state of media communication. In other words, media thinking represents people' s exploration of the nature and functions of communication media, and even further contemplation of the nature and functions of communication media as a whole. Essentially, while communication media scientifically interpret media development laws in an unalterable manner, this

thinking mode exhibits considerable flexibility.

### 1.3 Quantum Media Thinking

The quantum media thinking mode is a media thinking approach built upon quantum physics foundations. It originates from macroscopic physics and holds significant value for vigorously studying the physical properties of macroscopic objects. To establish quantum media thinking, one must primarily rely on the properties of quantum physics while also emphasizing the theories of object physical properties provided by classical physics. Quantum media, referred to as internet media, generally represents a type of information dissemination based on quantum theory. In other words, quantum communication thinking emerges from quantum research, though measurement inaccuracies may occasionally occur. From a physics perspective, human cognition manifests in three worlds: the Newtonian physics world, the Newtonian physics world, and the quantum physics world. However, regardless of which stage human understanding occupies, one constant remains: the world is essential, unshakable, and unchangeable; otherwise, humanity would have no necessity for existence. In Newtonian physics research, Newtonian thinking represents a macroscopic thinking mode that essentially constitutes normal human cognition. In other words, humans form concrete thinking about the world through sensory organs such as smell and touch, which helps them better understand the world.

## 2. Types of Media Technology

### 2.1 Media Technology Types

Media technology is referred to as information technology. Since the dawn of humanity, applied communication media have included multiple types, as outlined below: (1) The formation of shared language media and language media technology, which represents an instinctive media technology for humans as communication media, possessing certain adaptability and innovativeness. (2) The formation and development of paper media, which provided opportunities for innovative development of paper media technology. (3) Information technology related to the formation and development of computer technology, representing innovative internet information technology based on computer technology research and development. Computer technology primarily encompasses hardware and software—the former comprising integrated technologies for computer information data storage, processing, and transmission, while the latter consists of data collection software technology, storage software technology, retrieval software technology, and application evaluation technology. (4) Internet media technology directly related to the formation of quantum media thinking belongs to a highly scientific media technology, also termed quantum media technology. This technology also represents a new type of communication medium built upon quantum research.

## 2.2 Media Technology Capability is Proportional to its Application Degree

With continuous social development, science and technology represent advanced productive forces and embody a development philosophy—representing people's correct understanding of the objective world. Through advanced science and technology, people can not only comprehend the world correctly but also apply its developmental laws to better adapt to it. Advanced science and technology enhances people's cognitive abilities regarding the world. In other words, technology functions as a tool that provides humanity with abundant knowledge. Science and technology maintain close connections with our daily lives, as technology generally solves practical problems in everyday life, demonstrating strong practicality in common life domains. For science and technology, technologies formed under scientific theoretical guidance generate tremendous scientific productive forces. Without scientific theoretical guidance, technology becomes a blind endeavor, preventing the manifestation of technological power. Conversely, scientific theory alone without highly practical technology cannot unleash genuine productive forces.

The capabilities demonstrated by science and technology vary across different industries and enterprises, primarily determined by the nature of the industries they serve. For instance, in the internet communication field, technology's main function manifests in industrial capacity. Meanwhile, the industrial functions of science and technology in internet communication result from industry characteristics. When applying science and technology in an industry, the first step involves determining the industry's nature. However, science and technology also face certain limitations, primarily stemming from people's cognition of them. Higher cognition of science and technology increases the probability of their transformation into productive forces, thereby significantly promoting economic and social development.

## 2.3 Effective Management of Media Technology to Maintain Security

Like other types of science and technology, media technology is a double-edged sword. While it can benefit human life, it may also adversely affect people's lives. A core example of this phenomenon is technology itself, which facilitates further social development but also possesses tremendous destructive potential for society. Based on this reality, it is necessary to strengthen the management of science and technology and utilize them correctly to promote stable socioeconomic operation.

## 3. On the Formulation of Media Strategy Systems

Over decades of development, China's media theory has evolved from nonexistence to a distinctive and comprehensive theoretical system. Currently, this system encompasses several types. First, the innovative development strategy implemented in today's internet media industry, which primarily includes the

enterprise strategy adopted by our country's public institutions and represents the nation's latest development strategy. Second, the development planning stage for traditional media industries, during which China's operational media undertakings within the media system gradually transform into industries, and media cultural industries progressively integrate into modern cultural industry systems. Third, the currently implemented "Internet Plus" enterprise development strategy, typically referring to internet development planning as an advanced enterprise development model. This represents the innovative development manifestation of traditional media industries under China's new era context. Achieving this strategic plan requires strong sustainability. Therefore, after accomplishing strategic objectives in the media industry, it is necessary to continuously connect with new development goals. Typically, such new strategic plans manifest in two aspects: examining the status of previous strategic objectives and then formulating plans for new strategic objectives based on actual conditions.

### 3.1 Media Economic Theory Strategy

With the deepening of reform and opening-up, media economic theory has undergone certain improvements and refinements, essentially achieving the industry's development strategic objectives. First, it is necessary to highlight the economic development laws of the media industry and gradually establish an economic development system for the sector. Second, it must fully reflect the characteristics of the media industry and establish a theoretical development system with industry-specific features. Generally, future media economic theory strategies are composed of multiple dimensions, such as big culture, big media, and big wisdom.

Against the backdrop of human communication, with continuous improvement and refinement of communication technologies, big culture and big communication represent future development forms for the media industry. Typically, big culture constitutes a comprehensive culture formed by integrating norms, ideologies, and other cultural elements. Big communication primarily involves the operational forms of the media industry. Regarding the economic dimension of the media industry, industry development encompasses two main aspects: first, the development of the physical media industry refers to the development of various media forms; second, the integration of media economy with other economies involves combining the national economy with the media economy and threading media economic development throughout national economic development.

### 3.2 Convergence and Development of the Media Industry

For convergence and development in the media industry, convergence must first occur. Convergence generally refers to new entities formed under external forces, representing a stage of innovative development. During this stage, non-novel elements are discarded while novel elements are selected and aggregated into a

unified whole. Media industry convergence development refers to the innovation of traditional media industries propelled by new media technologies, with such new media technology serving as the driving force for media industry convergence. This driving force possesses objectivity, functioning as a propellant for media convergence independent of human will, and can satisfy the basic requirements of current media technologies. Only by achieving media convergence can communication media achieve better development.

At the current stage, to further promote media convergence development, it is necessary to vigorously implement media convergence strategies, optimize these strategies based on convergence requirements, thoroughly resolve existing problems, and thereby obtain the economic benefits brought by media convergence.

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

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