

A Preliminary Analysis of the Role and Challenges of Artificial Intelligence in the Construction of International Communication Systems: Postprint

Authors: Zhou Ying

Date: 2025-09-19T15:52:11+00:00

Abstract

[Objective] To further enhance the effectiveness of international communication by mainstream media and fully exploit the boosting role of artificial intelligence technology in international communication. **[Methods]** This paper employs case analysis method to examine the practical achievements of mainstream artificial intelligence technologies in China within the international communication domain. Through SWOT economic analysis, it specifically examines the opportunities and challenges that AI brings to the international communication capacity building of mainstream media, and proposes targeted coping strategies. **[Results]** The research finds that emerging technologies, particularly artificial intelligence, are gradually becoming core drivers of the transformation of international communication paradigms and patterns. The extensive application of AI technologies represented by ChatGPT and Sora has greatly transformed the original content production methods, resource structures, and communication logic of international communication. **[Conclusion]** Mainstream media must squarely face the new changes and challenges that artificial intelligence brings to the international communication landscape, give full play to their content and professional advantages, prudently address risks and challenges, and further enhance international communication effectiveness by leveraging AI technology.

Full Text

Preamble

A Preliminary Analysis of the Role and Challenges of Artificial Intelligence in the Construction of International Communication Systems
(Xinhua News Agency News Information Center, Beijing 100032)

Abstract:

[Objective] To further enhance the effectiveness of mainstream media's international communication and fully exploit the catalytic role of artificial intelligence technologies in this domain.

[Methods] This paper employs case study analysis to examine the practical applications of China's mainstream AI technologies in international communication. Through SWOT economic analysis, it systematically dissects the opportunities and challenges that AI presents to mainstream media's international communication capacity building, and proposes targeted response strategies.

[Results] The research reveals that emerging technologies, particularly AI, are gradually becoming core drivers of paradigm shifts and structural changes in international communication. Large-scale applications of AI technologies such as ChatGPT and Sora have fundamentally transformed traditional content production methods, resource structures, and communication logic in international communication.

[Conclusion] Mainstream media must confront the new changes and challenges that AI technologies bring to the international communication landscape, leverage their content and professional advantages, cautiously address risks and challenges, and utilize AI technologies to further enhance international communication effectiveness.

Keywords: artificial intelligence; international communication; mainstream media; content production; strategy research

Classification Code: G223

Document Code: A

Article ID: 1671-0134(2025)08-137-05

DOI: 10.19483/j.cnki.11-4653/n.2025.08.030

Citation Format: Zhou Ying. A Preliminary Analysis of the Role and Challenges of Artificial Intelligence in the Construction of International Communication Systems[J]. China Media Technology, 2025, 32(8): 137-140, 153.

Main Text

The report from the 20th National Congress of the Communist Party of China calls for “strengthening international communication capacity building, comprehensively enhancing international communication effectiveness, and developing an international discourse power commensurate with China's comprehensive national strength and international status” [1]. In recent years, with rapid technological development and accelerated industrial digitalization, AI technologies represented by ChatGPT and Sora have been widely applied, profoundly altering traditional content production methods, resource structures, and communication logic in international communication. Numerous domestic technology companies have accelerated technological iteration and upgrades, developing AI products tailored to China's media communication environment that have been widely adopted by media organizations at central, provincial, municipal,

and county levels. For instance, iQiyi, Huace Film and Television, and other institutions have successively built audiovisual data large models and accelerated the development of generative AI dubbing systems, launching various technical tools for speech recognition, translation, and synthesis to facilitate communication among different linguistic and cultural groups and promote Chinese culture globally.

As digital technology penetration accelerates in global cultural trade, China's online literature "going global" is transitioning from scale expansion to quality upgrading. The *2023 China Online Literature Going Global Trends Report* shows that AI has increased translation efficiency by nearly a hundredfold while reducing costs by over 90%. More than 100 audio works have been launched, with the most popular single work reaching 108 million plays[4].

1. Practical Applications of Artificial Intelligence in International Communication

Media convergence is an inevitable product of the information age, breaking down traditional boundaries between media and reshaping the information communication ecosystem[2]. AI applications in international communication primarily focus on three aspects: natural language processing, cross-modal content production, and scenario-based intelligent distribution. Each aspect reflects developmental achievements at different stages—binary conversion, multi-modal generation, and networked dissemination—while remaining organically unified throughout the entire process from planning to collection, editing, and distribution, serving the entire content production and communication chain.

1.1 Natural Language Processing Technology: Overcoming Communication Barriers Caused by Linguistic and Cultural Differences

In international communication, the polysemy and complexity of human language and culture often lead to misinterpretation and misunderstanding due to inaccurate translation or inappropriate contextualization. Emotional connections between different countries and ethnic groups are easily hindered by linguistic and cultural differences, potentially triggering cross-cultural conflicts[3]. NLP technology serves as the foundation for AI applications. Mainstream media possess significant cluster and professional advantages in mining and developing content resources, enabling them to provide data-rich, stable, and continuously updated content resources for building AI corpora.

In 2018, iFlytek launched a customized personal anchor function using voice cloning technology, requiring only ten recorded sentences to generate and simulate a user's complete voice library. By preserving the user's tone, pitch, and emotion more comprehensively, users can convert text into their personal anchor's voice[5]. In July 2024, iFlytek, together with the Hunan Provincial Party Com-

mittee Propaganda Department, China International Communications Group, and Hunan Normal University, established the Malanshan Dubbing Center in Changsha, Hunan. Utilizing the iFlytek Spark Voice Large Model, the center produces multi-terminal graphic and new media content in languages covering Belt and Road partner countries and global mainstream languages, helping to broaden channels for cultural export.

1.2 Cross-Modal Content Production Technology: Enabling Automated Production and Multi-Language Output

In cross-cultural communication, works with prominent local cultural characteristics face greater difficulty in gaining recognition from audiences in other countries or cultural systems, and the barrier to transmitting ideas across cultural differences is higher, easily resulting in cultural discount. Visual and video-based presentation forms help reduce cross-cultural communication difficulty and better resonate with audiences. Generative AI technology can automatically identify, match, and call media resources during large-scale corpus learning, producing multi-language and multi-modal works to meet publishing needs in different countries and regions[6].

For example, “Pandaful,” an account operated by Xinhua News Agency’s Sichuan branch, is the world’s first AI technology-driven giant panda series production project launched by Xinhua. It has established an intelligent panda media database and an algorithm training database, enabling automatic recognition of panda actions and scenes, and automatically producing short videos, mobile ringtones, and other converged media products. In the first half of 2024 alone, the “Pandaful” account released over 5,600 short video products and nearly a thousand giant panda slow livestreams, accumulating more than 1.5 billion views across domestic and international platforms. By December 2024, the “Pandaful” Facebook account had surpassed 4 million followers, becoming a distinctive “giant panda culture” IP.

In August 2024, Tencent Cloud won the bid for China Daily’s “International Communication Intelligent Application” research project. According to the bidding documents, Tencent Cloud will utilize China Daily’s accumulated multi-category corpus resources in international communication to build a RAG (Retrieval-Augmented Generation) knowledge base. Benchmarking against OpenAI and Google Gemini, it will develop an exclusive large model and intelligent orchestration platform, providing a series of multi-modal intelligent tools for collection and editing production, thereby improving quality and efficiency in creative planning, image production, and audio-video production.

The “planning-collection-editing-distribution-feedback-evaluation” chain forms a complete communication cycle. In international communication, intelligent distribution requires not only bridging the “last mile” of communication but also dynamically analyzing the needs and preferences of different communication channels, countries, and regions, keenly capturing hot events and public

opinion trends, and setting agendas in advance to layout the “first mile.” It is necessary to establish a global cross-media communication monitoring system that adjusts external communication strategies based on communication effectiveness, enabling media to effectively guide international public opinion[7].

For instance, Xinhua News Agency actively utilizes overseas social media platforms for international communication. Taking the Top News channel of Xinhua’s English client as an example, the channel highlights daily news, featuring important articles as top stories with large images, while other graphic articles, videos, and livestream products are arranged according to news value and international attention, effectively facilitating precise content dissemination[8]. Similarly, Chongqing International Communication Center’s “Bridging News” English client adopts a mobile, social, and visual approach based on an overseas user retention model of “information acquisition–interaction accumulation –service conversion.” Relying on the “Wenhai Big Data” platform from Zhongke Wenge, it monitors and analyzes China- and Chongqing-related information on overseas mainstream social media accounts, predicts suitable topics, and helps the center conduct targeted agenda-setting according to audience characteristics on different platforms, thereby enhancing communication interaction rates[9].

2. SWOT Analysis of AI’s Impact on Mainstream Media’s International Communication Capacity Building

Rapid technological development inevitably brings changes to production relations and a series of internal and external environmental conditions, profoundly affecting the interests and development paths of all parties in the industrial ecosystem. The practical application of AI technology in international communication presents both opportunities and challenges for mainstream media’s international communication capacity building[10]. The following section employs SWOT analysis to systematically examine the multidimensional impacts of AI technology on mainstream media’s international communication capacity building.

2.1 Strengths: High-Quality Content Resources and Professional Advantages of Mainstream Media Can Provide Data Support for AI and Expand Application Scenarios

Semantically accurate and richly formatted media resources are fundamental to AI research and development. Mainstream media possess significant advantages in mining and developing content resources, enabling them to provide data-rich, stable, and continuously updated content resources for building AI corpora. In the context of global development, media communication distance and efficiency have grown exponentially, breaking the spatial and temporal boundaries of content dissemination and enabling global user coverage[12]. AI applications have significantly reduced human resource costs, improved content production effi-

ciency and quality, and prompted local international communication centers to shift their focus in overseas social media account operation toward the distribution end, placing increasingly “competitive” demands on follower growth, post interaction, and video dissemination.

2.2 Weaknesses: Local International Communication Centers’ AI Applications Concentrated on Production and Distribution Ends, with Low Investment in R&D

According to incomplete statistics, by the end of September 2024, more than 80 media institutions at the provincial, municipal, and county levels had been established under the name “International Communication Center,” with nearly full coverage at the provincial level, marking an important symbol of the deepening development of China’s international communication capacity building[11]. In the “pre-AI” era, insufficient content output and a shortage of professional talent were major bottlenecks in the development of local international communication centers. Many local governments chose to outsource overseas social media account operations to central or provincial media to address content production challenges.

However, technology R&D requires long-term, substantial economic support and specialized talent. Compared with content production and communication promotion, local international communication centers have relatively low investment in independent AI R&D and iterative upgrades, relying more on ready-made applications and localized deployment. They still lack professional technical talent to optimize and refine the underlying logic and algorithmic rules of AI technology. During the AI application integration phase, technical personnel and editors require considerable time to adapt to each other. In terms of content review, generative AI involves multi-team collaboration on corpora, algorithmic rules, and training data. Automatically generated content still requires human intervention and value judgment when applied to specific publishing contexts to avoid political or factual errors and ensure publication safety.

2.3 Opportunities: Strong Demand for Precise Overseas Communication Highlights Mainstream Media’s Overseas Layout Advantages

The widespread application of AI has helped local international communication centers accelerate the production efficiency and quality of converged media works, significantly improving previously weak content supply. Many international communication centers have attempted to cooperate with overseas mainstream media for content exchange and explore establishing communication bases overseas to penetrate deep into foreign public opinion fields and amplify their international communication voice.

For example, the Sichuan International Communication Center independently developed the “Zongmu Cloud” international communication intelligent technol-

ogy platform to support six international communication websites and nearly 100 overseas social media accounts, covering over 20 million overseas users with cumulative overseas communication volume exceeding 5 billion. The name “Zongmu” is derived from the Sanxingdui artifact—the bronze vertical-eyed mask—symbolizing the grasp of integration opportunities and comprehensive improvement of international communication’s cutting-edge nature, content distribution precision, and overseas communication effectiveness[13]. In June 2024, the Sichuan International Communication Center cooperated with Kuaishou to establish a São Paulo branch in Brazil, launching the “Brazil Panda Lounge” and “PandaNotícias” Portuguese account matrix, with plans to open overseas communication bases in Paris, France, and Frankfurt, Germany[14].

However, most local international communication centers, constrained by high overseas operating costs, cannot establish close connections with local mainstream media in the short term. Their converged media works are mostly implemented through single events or projects and have not yet formed normalized communication mechanisms. In this context, central media’s advantage in “full landing” coverage in overseas mainstream media becomes apparent. Xinhua’s Japan, Germany, Italy, Indonesia, Thailand, and other country-specific wires not only cover most mainstream media in target countries but are also widely adopted by mainstream media in Europe and the United States. While achieving precise communication, they also have spillover communication effects, effectively meeting the urgent overseas promotion needs of local international communication centers.

2.4 Threats: Ambiguous Interpretation of Key Cultural Symbols May Pose Cross-Cultural Communication Risks

Although AI has demonstrated impressive capabilities in many natural language processing tasks, it faces a series of challenges and limitations. These include data bias issues, where models may replicate gender, racial, and cultural biases in their training data. Additionally, AI has limitations in truly understanding deep linguistic meaning, citing information sources, handling correlations between multiple texts, understanding temporal concepts, and processing rare events[15].

Particularly in international communication, AI applications must rely on accurate and appropriate semantic transformation standards. Especially for terms with significant traditional Chinese cultural meaning, without manual intervention based on cultural background and specific context, semantic inappropriateness can easily occur, even triggering public opinion risks. For example, during the 2024 Year of the Dragon Spring Festival, overseas social media accounts such as Facebook and X published multiple AI-generated posters that stigmatized the specific meaning of the Chinese zodiac dragon in traditional culture. Xinhua News Agency specifically published reports including *How Should “Dragon” Be Translated?* and the animation *When “Chinese Dragon” Meets “Western Dragon”*, sparking a heated “dragon debate” in domestic and international public opinion

fields around “dragon translation” and “dragon differences.”

This fully demonstrates that AI’ s algorithmic rules, generation patterns, and application scenarios have gradually become new focal points of competition in the international public opinion arena in the intelligent media era. Mainstream media must cautiously address AI’ s deficiencies in interpreting key cultural symbols during cross-cultural communication of Chinese cultural symbols to avoid public opinion risks caused by AI technology’ s “algorithmic black box,” value judgment imbalance, and stigmatization by Western countries.

3. Strategies for Addressing Opportunities and Challenges Posed by AI to Mainstream Media’ s International Communication Construction

International communication is not only a cross-border information dissemination activity but also reflects deep-level games between different countries in political systems, economic levels, comprehensive national strength, and ideology. The strength of international communication capacity is an important manifestation of national overall strength and international competitiveness[16]. The widespread application of AI has opened a “new track” for international communication. Mainstream media urgently needs to leverage their news resource advantages and think tank research advantages to seek opportunities within challenges and achieve transformational transcendence.

3.1 Leverage Content Advantages and Attempt to Co-Build Media Resource Databases with Technology Companies

Generative AI is essentially a “simulator” built on large models and pre-training using massive data. Media resource accumulation and standard setting are rigid needs for AI technology companies seeking development. Mainstream media can attempt to provide original content resources to technology companies to build high-quality corpora and consolidate AI data foundations. Especially in international communication fields with obvious vertical user characteristics—such as local biographies, cultural tourism industries, and ecological protection—mainstream media can collaborate with technology companies to build specialized corpora around professional terminology and exclusive image and video materials.

3.2 Seize Opportunities and Innovate International Communication “Two-Way Promotion” Mechanisms

Local international communication centers possess natural advantages in initiative, sensitivity, and convenience when handling “small 切口” (small-angle) topics in international communication. In Western media reports, “locality” is often used as an important anchor for constructing China-related narratives,

linking single events with overall topics. Central media' s overseas marketing networks can support the promotion and landing of local international communication centers' news information products, while their content resources can serve as beneficial supplements to strengthen central media' s international communication capacity building.

First, for provinces, cities, and districts with strong international communication capacity or specific cross-border economic, trade, and cultural exchange needs with certain countries and regions, attempt to develop normalized international communication promotion cooperation. Traditional Chinese culture contains the philosophy of “being kind to neighbors,” which has even greater significance in today' s world. Good “neighborly” peripheral communication helps create a favorable surrounding environment for China' s development. By integrating local Chinese stories with stronger local characteristics and higher narrative granularity into central media' s foreign news information products, and relying on central media' s geographical layout advantages, the initiative of Chinese cultural communication can be further enhanced.

Second, for regions with significant regional integration strategic characteristics, attempt to launch special manuscript solicitation activities. Central media can guide cities in the Yangtze River Delta, Pearl River Delta, Beijing-Tianjin-Hebei region, and Chengdu-Chongqing area—each with distinct urban temperament, historical connections, and cultural heritage—to collectively create multi-language converged media products in the form of “assigned topics,” exploring new communication paths with global influence, Chinese characteristics, and local advantages.

Third, actively set agendas and launch international communication activities with distinct Chinese cultural characteristics to amplify the “central-local linkage” effectiveness of international communication. For example, in November 2024, under the guidance of Xinhua News Agency, the National Forestry and Grassland Administration, the Sichuan Provincial Party Committee, and the provincial government, and jointly organized by Xinhua' s Sichuan branch, Xinhua News Information Center, China Wildlife Conservation Association, and Chengdu Media Group, the “2024 Global Panda Partners Conference” was successfully held in Chengdu[17]. The conference specially included ecological tourism route promotion and experience-sharing sessions, inviting diplomatic corps in China to visit Chengdu, Deyang, Mianyang, Yibin, and other places to experience Sichuan' s cultural heritage and its efforts in advancing Chinese modernization. This not only maximized the international communication effectiveness of the giant panda as a Chinese cultural symbol, enhancing China' s discourse power and influence in global ecological civilization construction, but also effectively helped local governments enhance their global visibility, expanding service areas from traditional city image shaping and cultural tourism promotion to broader fields such as global ecological protection.

3.3 Leverage Think Tank Advantages and Explore Differentiated Development Paths for Think Tank Research

Currently, evaluation systems and think tank research around local international communication centers and city image international communication have become a “red ocean.” In contrast, international communication matrices built and operated by state-owned enterprises are still in the exploratory stage and urgently need to leverage mainstream media’s international communication think tank research advantages to solve the problems of “unwillingness, fear, inability, and incompetence” in speaking out.

State-owned enterprises are important calling cards for China on the international stage and effective carriers and display windows for national image. Corporate overseas reputation is closely related to national image construction, and international communication helps shape both national and corporate images[18]. On the one hand, leveraging central media’s overseas layout advantages and using big data and AI monitoring and analysis technologies, we can conduct country-specific studies on external communication from a strategic height that coordinates both domestic and international situations. Based on the development of mainstream media and public opinion environments in target countries and regions, as well as cooperation between central media and overseas mainstream media, we can formulate targeted international communication strategies to provide decision-making references for state-owned enterprises’ overseas promotion of key products or projects, fully demonstrating state-owned enterprises’ positive efforts in advancing cross-border technological cooperation and boosting local livelihood construction during their “going global” process, thereby fulfilling social responsibilities and demonstrating major-country demeanor.

On the other hand, we should fully utilize mainstream media think tank “circle of friends” resources, leveraging overseas think tank cooperation channels to voice opinions deep in overseas public opinion “hinterlands,” helping state-owned enterprises shape a positive and responsible image on the international stage, and continuously broadening central media’s service boundaries in international communication and market economy fields.

3.4 Address Risks and Build a Semantic Transformation System for Chinese Cultural Symbols

Excellent Chinese culture provides rich content resources for China’s international communication capacity building. The value concepts it contains are the source of strength for Chinese civilization’s development and an important component of world civilization history. In the AI era, using new technologies and methods to create new concepts and categories that bridge China and foreign countries, and promoting Chinese cultural value concepts to better adapt to new situations and environments, are important responsibilities of mainstream media in advancing international communication capacity building.

Mainstream media can attempt to collaborate with technology companies to

conduct in-depth cooperation around Chinese cultural symbols, enabling AI systems to master the nuances, symbolic meanings, and cultural connotations of Chinese cultural symbols, re-examining the intersection points between Chinese civilization and other civilizations, and minimizing cultural discount caused by AI technology in disseminating Chinese cultural values, thereby allowing the profound value concepts of Chinese culture to reach international audiences in the new era[19].

As a representative of new quality productive forces, AI technology not only leads a new round of technological transformation and drives the iterative upgrading of new quality production relations but also brings enormous and even disruptive opportunities and challenges to media development. “Where is media transformation heading?” has become a “must-answer question” for mainstream media in this era[20].

Currently, AI technology applied in international communication not only optimizes content production capacity and recreates communication processes but also iteratively upgrades the logic of international communication itself. We must seize the momentum and not miss the opportunity. As the main force in international communication capacity building, mainstream media should confront the impact of AI technology on the international communication landscape, fully leverage their media resource advantages and global network layout advantages, empower international communication construction with AI technology, extensively connect with local international communication centers, drive overall international communication effectiveness, and tell China’s stories and spread China’s voice to the world.

References

- [1] Tan Mingyue. Analysis of Strategies for State-Owned Enterprises to Strengthen International Communication Under New Situations—Taking the Construction of Foreign Language Websites of State-Owned Enterprises as an Example[J]. *China Media Technology*, 2023(8): 59-62.
- [2] Wei Xue. Innovation and Challenges in Content Production Under Media Convergence[J]. *China Media Technology*, 2024, 31(12): 94-97.
- [3] Zhu Hongjun, Wang Wen. Analysis of Empathetic Application of Artificial Intelligence Technology in International Communication[J]. *International Communications*, 2023(6): 4-7.
- [4] Mao Zhenhua, Ma Xinran, Song Rui. Overseas Users Exceed 150 Million: Online Literature Going Global Enters a New Stage of “Global Co-Creation” [N]. *Economic Information Daily*, 2024-01-30(A04).
- [5] Liu Zhenying. The Boosting Role of Voiceprint Recognition and Cloning Technology in Short Video International Communication[J]. *China Media Technology*, 2024, 32(2): 64-69.
- [6] Zhou Baohua, Wu Yuqing. International Communication Under the Influ-

- ence of Generative AI: Practical Progress and Impact Path[J]. *International Communications*, 2024(6): 4-8.
- [7] Ren Ding. Strengthening International Communication Capacity Building and Enhancing International Communication Influence[J]. *China Media Technology*, 2020(7): 37-39.
- [8] Lu Xiaojing, Jiang Cuiping, Yao Yongchun. AI-Driven Transformation of International Communication: Strategies for New Mainstream Media to Respond and Adapt[J]. *Publishing Wide Angle*, 2024(10): 45-49.
- [9] Guan Hong. Strengthening Four Foundations to Enhance International Communication Effectiveness[J]. *News Front*, 2023(2): 4-6.
- [10] Yang Xue. Telling Chinese Stories in Diverse, Inclusive, and Youthful Ways[N]. *People's Political Consultative Daily*, 2023-05-08(9).
- [11] Li Peng. Building a Domestic-International Dual-Track, Dual-Cycle, Dual-Drive Communication Model[J]. *Chinese Journalist*, 2024(7): 84-87.
- [12] Ren Ding. Technology Helps Media International Communication Capacity Building—International Communication is One of the Directions of Media Convergence Development[J]. *China Media Technology*, 2019(12): 21-23.
- [13] Huang Zhiling. Sichuan Releases “Zongmu Cloud” International Communication Empowerment Plan[EB/OL]. (2024-03-31)[2025-02-20]. <https://baijiahao.baidu.com/s?id=1795003532981719147&wfr=spider&for=pc>.
- [14] Li Xu, Zhang Yu. Three Mindsets in Provincial International Communication Center Construction[J]. *Chinese Journalist*, 2024(6): 29-32.
- [15] Wang Yan, Bu Chenyang. Implications of Large Language Model Technology for the Development and Transformation of Network and New Media Majors[J]. *China Media Technology*, 2024, 31(9): 11-16.
- [16] Du Senlin, Chen Qingshan. Problems and Response Strategies for International Communication of Chinese Discourse in the Digital Intelligence Environment[J]. *China Media Technology*, 2024, 31(7): 37-40.
- [17] Lu Xingyu, Li Feifei. From Panda Base to East Suburb Memory: “Global Panda Partners” Experience Happy Chengdu[N]. *Chengdu Daily*, 2024-11-26(A02).
- [18] Tan Mingyue. Analysis of Strategies for State-Owned Enterprises to Strengthen International Communication Under New Situations—Taking the Construction of Foreign Language Websites of State-Owned Enterprises as an Example[J]. *China Media Technology*, 2023(8): 59-62.
- [19] Liang Xiaodong, Wang Meng. International Communication Strategies for Chinese Original Culture in the AIGC Era[J]. *Journalism Lover*, 2024(2): 47-49.
- [20] Fu Hua. Seizing Innovation Opportunities and Deepening Exchange and Cooperation—Using AI Technology to Better Promote Systematic Media Transformation—Keynote Speech at the Opening Ceremony of the 6th World Media Summit[J]. *Chinese Journalist*, 2024(11): 4-5.

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

Source: ChinaXiv – Machine translation. Verify with original.