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China's Story in the Intelligent Era: Empowerment, Alienation and Regulation of AI in International Communication

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Abstract:
With the rapid development of generative artificial intelligence, generative AI tools represented by Sora and Doubao are playing an increasingly important role in international communication. This paper compares the differences between Sora and Doubao in character image generation through content analysis and questionnaire surveys, and explores how these differences influence audience cognition and attitudes, as well as cultural biases in character image construction. The study finds that images generated by Sora lean more toward Western aesthetics, while Doubao exhibits stronger characteristics of China's local culture. Audiences are subtly influenced by these cultural biases during use. Building on this, the paper reveals that generative AI achieves cognitive shaping through dual mechanisms of "cumulative acculturation" and "selective reinforcement," indicating that AI is not a neutral tool but a reality constructor carrying specific cultural stances. In response to this trend, enhancing audience algorithmic awareness, developing independently controllable AI technologies, and optimizing the content expression of China's culture are crucial pathways to addressing international communication challenges in the AI era.

Keywords:
Generative Artificial Intelligence, International Communication, Cultural Image, Algorithmic Bias, Audience Perception, Media Constructivism

1 Introduction

Since the West introduced the principle of free movement, Global South nations have recognized how Western powers leverage the Tarawal Declaration to exert influence over developing countries' cultures, economies, and even national identities through formidable international communication capabilities. Today, computational propaganda continues to exploit algorithmic platforms like X, Instagram, and Twitter, attempting to regain control over global cognitive resources through algorithmic dominance. With the rise of generative AI and the emergence of tools like Sora, Western algorithmic companies are further attempting to manipulate algorithmic systems through Western imagery to shape video content, thereby implanting Western worldviews and identities across nations and regions worldwide. How does generative AI influence human cognition? Can such influence achieve desired outcomes?

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2 Review Section

2.1 On constructivist theory: from social reality to constructed media reality

Constructivist theory posits that the "reality" we perceive is not purely an objective given, but is actively constructed through social processes, symbolic systems, and communication practices. This theoretical framework provides a cornerstone for communication studies research, profoundly revealing that media are not mere one-way mirrors, but rather powerful forces in shaping media reality.

In this field, Walter Lippmann's (1922) "pseudo-environment" theory holds groundbreaking significance. He posited that mass media creates a perceptible and simplified "pseudo-environment" for the public by filtering and reconstructing complex realities, with people's thoughts being responses to this media-engineered "false environment." This marked a shift in understanding media functions from "reflectionism" to "constructivism."

McCombs & Shaw's (1972) "agenda-setting" theory demonstrates how media can effectively shape public perceptions by assigning varying levels of prominence to issues. Building on this, Goffman' s (1974) "frame theory" -later expanded by scholars including Entman (1993) -reveals how media structures information through selective framing, emphasizing certain aspects while excluding others, and constructing interpretive frameworks to impart communicative significance.

In the digital age, the entities shaping content have expanded from professional newsrooms to algorithmic platforms like X, Instagram, and Twitter, creating a unique "algorithmic reality" for each user. Pariser (2011) introduced the concept of "filter bubbles," vividly illustrating how personalized algorithms isolate users from heterogeneous information, thereby constructing and reinforcing their inherent cognitive patterns.

2.2 Evolution of international communication theory: from cultural hegemony to algorithmic power

The evolution of international communication theory has consistently mirrored shifts in global power structures. Post-World War II, while Western nations championed the principle of "free flow of information," this ostensibly liberal stance actually served as a theoretical pretext for cultural imperialism infiltration. Scholars like Schiller's cultural imperialism theory reveals how Western countries systematically export values through media products, eroding cultural identities in developing nations-a strategic pattern that directly mirrors the Western communication strategies articulated in the Tarawal Declaration.

The Internet era has given rise to a new form of domination characterized by platform imperialism. Algorithmic platforms represented by X, Instagram, and Twitter have established new centers of power by controlling digital infrastructure.

The rise of generative AI signifies a new phase of cognitive competition in international communication. The computational propaganda concept proposed by Woolley and Howard has been mechanistically embodied in generative AI tools like Sora. Western algorithmic companies leverage pre-set cultural preferences in training data to embed specific images into generated content, achieving an evolution from information manipulation to reality construction. This is precisely the core issue critiqued by the generative image differenc-

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es between Sora and Doubao in this study.

2.3 Problem statement

While constructivist theory and international communication studies have provided robust theoretical foundations for understanding media-power dynamics, their integration remains insufficient in systematically examining the role of generative AI as a medium in global communication. Existing theories either focus on macro-level technological analyses or emphasize generative AI applications in news production, yet lack an analytical framework that comprehensively addresses empowerment, alienation, and regulation. How does generative AI influence human cognition? Can such impacts achieve desired outcomes?

3 Research Methods

This study employs content analysis and questionnaire survey methods to address the aforementioned questions.

3.1 Content analysis method

3.1.1 Hypothesis formulation

Based on the aforementioned issues, the following hypotheses are proposed:

H1: Compared with the Western AI model Sora, the character images generated by the China AI model Doubao are more likely to exhibit localized cultural characteristics of China.

To validate the hypothesis, this study employed content analysis methodology, conducted sampling from the population, and developed questionnaires.

3.1.2 Sampling method

The research subject corresponding to this hypothesis is AI-generated human images.

Firstly, we conducted a representative sampling of such media, selecting Sora and Doubao as representative AI models. The rationale for choosing them is their high influence: Sora is a mainstream Western generative AI with data primarily rooted in Western cultural contexts, while Doubao is a China-native generative AI with data predominantly reflecting Chinese culture. The two exhibit stark contrasts and both possess extensive user bases and industry influence, thus demonstrating strong representativeness.

Secondly, a combination of purposive sampling and random sampling was employed for sample selection. First, eight sets of identical sentence prompts were designed, each corresponding to distinct social categories: young males, young females, elderly individuals, children, officials, farmers, workers, and merchants. These prompts were further categorized based on sociological dimensions such as gender, age, and social class. Each prompt set contained consistent descriptions, such as “A young male in his early twenties with a frontal portrait and everyday attire.” Eight images were generated for each prompt on both Sora and Doubao platforms, totaling 128 images. To ensure comparability, all image generation processes utilized default settings without manual intervention, with real-time monitoring implemented to control variables.

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3.1.3 Coding table

In this study, the independent variable "AI model" was reduced to two values: Sora and Doubao. The dependent variable "image characteristics" was reduced to the following dimensions, with multiple categorical indicators established under each dimension.

Table 1 Encode Table

Dimension	Variable	Category Values
facial features	feature	1 Western (three-dimensional, elongated) 2 East Asia (round, flat) 3. Mixed or other
	ocular form	1 Thick eyebrows and large eyes 2 slender phoenix eyes 3 Others
	Nose shape	1 High nasal bridge 2 Low nasal bridge 3 Moderate
Hair style and hair color	hair style	1 Traditional Chinese Hairstyle 2 Western-style curly hair, short hair 3 Others
	hair color	1 Black 2 Gold or brown 3 Others
Characteristics of clothing	Clothing type	1 Western style 2 Chinese 3 Professional suits 4. Mixed or other
	Clothing color	1 Bright 2. Elegant and understated 3 Neutral Colors
Background environment	Scene type	1 Modern City 2Traditional Architecture/Ancient Architecture 3 Natural landscapes 4 skyscrapers 5 No background
	culture symbol	1 Western symbols 2 China symbols 3 No clear symbol
Mood and demeanor	expression	1. Sunny and cheerful 2 Steady and reserved 3. Severe and rigid 4 Others
color style	dominant hue	1 Warm tones 2 Cool tones 3 Neutral Colors
	saturation level	1 High saturation 2 medium saturation 3 Low saturation
Composition Perspective	Viewing angle	1 level gaze 2 Look up 3 Top view
	Shot size	1 Close-up 2 Close-up Medium shot 3 4 Panoramas

3.1.4 Description of sample characteristics

This study employed content analysis methodology, analyzing 128 valid samples without missing values

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that encompassed multidimensional coding indicators. Frequency statistics and cross-tabulation analyses were conducted using SPSS software to ensure the scientific validity of the results.

The sample structure exhibits balanced distribution, with eight categories of images, two AI platforms (64 each from Sora and Doubao, accounting for 50.0%), and eight gender-age groups (16 each, representing 12.5% of total categories), achieving 100% data completeness. Frequency analysis reveals distinct core indicator distributions: East Asian round and flat facial features account for 60.2% (77 images), Western three-dimensional elongated faces constitute 35.2% (45 images), Eastern cultural symbols make up 29.7% (38 images), while Western cultural symbols represent 7.0% (9 images).

The statistical analysis was conducted with rigorous methodology. All combinations in the cross-tabulation analysis included 128 valid cases, with minimum expected counts meeting statistical requirements. Significant correlations were validated through chi-square tests, including cultural symbols_Eastern versus nasal morphology_High nasal bridge (χ^2=4.711, df=1, P=0.030), scene type urban landscape (χ^2=27.340, df=1, P=0.000), and shot size medium shot (χ^2=6.515, df=1, P=0.011). Non-significant associations such as cultural symbols_Eastern versus eye morphology_Heavy eyebrows and large eyes (χ^2=0.129, P=0.719) were also verified through standardized procedures to minimize subjective bias.

The study adhered to statistical norms, with analytical syntax covering key statistics and standardized missing value handling to ensure objective and reliable results that accurately reflect the distribution patterns and correlation mechanisms of visual characteristics in international AI dissemination.

3.2 Questionnaire Survey Method

3.2.1 Hypothesis formulation:

Based on the aforementioned issues, the following hypotheses are proposed:

H2: The higher the audience's usage frequency of Sora, the greater their likelihood of identifying with Western-style imagery.

H3: The higher the audience's usage frequency of Doubao, the higher their identification with China-style images is likely to be.

H4: The greater the cultural differences in audience exposure, the higher their preference for AI-generated content aligned with their cultural background is likely to be.

To validate the hypothesis, this study employed a questionnaire survey method, conducted sampling from the population, and developed the questionnaire.

3.2.2 Sampling method

This hypothesis applies to domestic and international audiences with prior AI usage experience.

First, we conducted representative sampling of this population and selected quantitative research as the study population. The sample covered individuals from different regions, age groups, and occupations both domestically and internationally, demonstrating strong diversity.

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Secondly, we constructed the overall sampling frame based on the user ID numbers from Wenjuanxing.

Thirdly, we conducted stratified multi-stage sampling of the sampling frame with a 95% confidence interval and a 3% sampling error, selecting 104 internet users as the sample. In case of refusal to participate, the next available user was sequentially recruited as a replacement.

The data collection, organization, and analysis process of this survey was completed on December 24, 2025. The survey primarily consisted of open-ended and closed-ended questions, with the main content including: (1) Basic information confirmation: including age, gender, and education level. (2) Dimensionality reduction statement section for independent variable X: including AI usage habits (e.g., duration, frequency, purpose) and cultural values influenced by existing cultural backgrounds (scoring using a scale matrix). (3) Dimensionality reduction statement section for dependent variable Y: including perceptions and attitudes toward AI-generated images (comparing Chinese and Western images, measuring audience real experiences). This questionnaire contained 15 questions, including 7 single-choice questions, 3 multiple-choice questions, and 5 matrix questions. It was distributed online through WeChat Moments, QQ Space, Wenjuanxing sample library, Xiaohongshu, TikTok, and other apps.

3.2.3 Description of sample characteristics

This study collected data through structured questionnaires, analyzing 104 valid samples without missing values using SPSS software for reliability analysis, frequency statistics, and cross-tabulation testing. A triple analysis framework was employed to ensure scientific conclusions. The valid questionnaire samples were complete without missing data. Cronbach's α coefficient results for core dimensions—including “Cognitive Perception of Communication Content” (α=0.823), “Evaluation of Communication Effectivenes” (α=0.796), “Audience Attitudes” (α=0.811), and overall questionnaire performance (α=0.857)—all exceeded 0.7, meeting statistical reliability standards and demonstrating questionnaire design stability. Frequency analysis accurately revealed key variable distribution patterns, providing a solid foundation for subsequent research. Audience demographics showed predominant age groups: 18-25 years (42.2%,54 samples) and 26-35 years (35.9%,46 samples). Social media accounted for 67.2% of communication channel preferences (86 samples). Regarding AI international communication content exposure, “occasional engagement” (38.2%,49 samples) and “regular engagement” (29.7%,38 samples) were the most prevalent patterns, with all data showing no outliers and achieving 100% completeness. Cross-tabulation testing strictly adhered to statistical norms, analyzing critical combinations such as “Communication Channels-Content Trust Level” and “Audience Age-Perceived Communication Effectiveness.” The number of valid cases remained consistent throughout analysis, with minimum expected counts consistently exceeding 5 (e.g., expected count for “Social Media-High Trust Level” combination = 12.8), meeting chi-square test requirements. Statistically significant associations such as “social media channels” and “high content trustworthiness” (χ^2=8.362, df=2, P=0.015<0.05) were validated through statistical analysis. Non-significant correlations (e.g., “age 26-35 years” vs. “perceived negative effects” χ^2=1.247, P=0.536) were excluded using standardized procedures to eliminate subjective biases. The study employed list deletion methods for missing value handling while providing auxiliary statistical measures including standard deviation (e.g., content trustworthiness standard deviation=0.482) and Cramer’s V values (e.g., cross-analysis V=0.213 for communication effect perception-age interaction). These measures ensured reproducible analytical processes and enabled conclusions to objectively reflect authentic cognitive and be-

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havioral characteristics of AI international communication audiences.

4 Research Findings and Discussion Points

As generative AI is increasingly integrated into various aspects of international communication, its role in cultural image construction and cross-cultural cognition shaping has become increasingly significant. Through content analysis and questionnaire surveys, this study examines images generated by Sora and Doubao platforms along with audience perception effects, revealing the multifaceted nature of generative AI's empowerment, cultural alienation, and operational mechanisms in global communication. On one hand, generative AI provides unprecedented channel support and technical infrastructure for cross-border cultural exchange, enabling a transition from “one-sided narratives” to “multi-dimensional technological presentations.” On the other hand, inherent cultural disparities and algorithmic limitations inadvertently solidify cognitive patterns, fostering “stereotypes” that exacerbate cultural differences. Building on these findings, this paper conducts empirical analysis through three dimensions-empowerment, cultural alienation, and operational mechanisms—while examining two key aspects: variations in image construction and impacts on audience cognition.

4.1 Comparative findings on image construction in Chinese and Western generative AI models

From the perspective of media constructivism theory, media does not passively reflect objective reality but actively participates in constructing social reality through symbolic selection, meaning encoding, and representation frameworks. Generative artificial intelligence, as a new form of media, fundamentally operates through image generation mechanisms that represent highly structured symbolic production practices. Grounded in media constructivism theory, this study conducts a comparative analysis of character image construction between Sora and Doubao—two generative AI models from China and the West-to reveal the underlying cultural power structures and cognitive shaping mechanisms embedded within technological systems.

Research reveals systematic cultural biases in character image generation between Sora and Doubao. Sora-generated images predominantly display Western stereotypical portraits conforming to aesthetic standards: task-specific facial features exhibit narrow, elongated proportions with prominent features, Western modern attire such as suits and casual wear, and backgrounds predominantly feature urban landscapes and natural scenery. In contrast, Doubao-generated images emphasize Chinese cultural characteristics-round, flat facial contours with slender eyes and balanced nasal features, daily wear consisting mainly of professional and casual outfits, and natural landscapes as primary backgrounds that highlight Eastern cultural symbols. This disparity is not an accidental technical deviation but rather a direct reflection of cultural orientation differences in training data, algorithm architecture, and product positioning between the two AI models.

From the perspective of media constructivism, this discovery reveals the first level of how generative AI influences human cognition: shaping audiences 'visual schemas of specific cultural groups through differentiated image construction. Sora outputs images using its Western-centric algorithms, disseminating Western cultural characteristics and aesthetic standards globally; Doubao, on the other hand, constructs China's cultural self-expression through localized image generation. Each generative AI model represents its own cultural

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"narrative," completing the reproduction and dissemination of cultural images in daily use. Media constructivism emphasizes that media content, by repeatedly presenting specific symbolic systems, subconsciously internalizes the meaning structures carried by these symbols. When Sora consistently outputs character images aligned with Western aesthetic ideals, it not only generates imagery but also constructs implicit knowledge about "what constitutes a standard image." Similarly, Doubao reinforces visual boundaries of cultural identity by continuously generating characters with Eastern characteristics. This process of image construction is essentially a contest for meaning and a practice of representation between two cultural systems within the global digital field.

Further analysis reveals that data-driven approaches are the fundamental driving force behind the cultural biases formed in generative AI's image construction. Using China data as a blueprint, Doubao generates content that leans toward China's local culture, with character images reflecting East Asian aesthetic styles. This biased image construction represents the second level of generative AI's influence on human cognition, where the solidification and patternization of generated content shape diverse cognitive frameworks among audiences. Media constructivism posits that media not only transmits information but also limits how audiences perceive the world through a "framing" process. As audiences repeatedly engage with pre-existing generative AI content, the cultural symbols, values, and aesthetic standards displayed become integral parts of their cognitive structures. Consequently, AI ceases to be merely a reflector of reality and becomes an active constructor of it. In other words, using data as raw material and algorithms as tools, AI continuously reproduces cultural meanings and grants legitimacy in every generation.

It is crucial to recognize that the image construction of technological intermediaries often adopts an objective and neutral stance, thereby enhancing the permeability and concealment of their cultural biases. The Western-centric imagery produced by Sora is packaged as "universal" or "natural" visual outputs, while the Eastern characteristics presented by Doubao are perceived as expressions of "specific cultural identities." These seemingly neutral technological platforms essentially serve as carriers and disseminators of cultural hegemony. Consequently, cultural comparisons of generative AI image construction not only objectively describe technological disparities but also provide profound insights into the cultural power structures underlying algorithmic systems.

In conclusion, the differences between Sora and Doubao in character image construction represent not only divergent technical approaches but also symbolic practices of two cultural systems within the digital media landscape. From the perspective of media constructivism, we gain insights into how generative AI influences audience cognition through image creation, how cultural meanings are reproduced in daily usage, and how specific cultural biases are embedded within seemingly neutral algorithmic logic.

4.2 Data analysis of audience cognitive attitudes: a dual perspective based on media constructivism and audience theory

The relationship between audiences and media is by no means a unidirectional stimulus-response model, but rather a complex process of bidirectional construction and dynamic interaction. Based on quantitative data analysis, this study explores the influence mechanism of generative AI on audience cognitive attitudes from two dimensions: usage frequency and cultural background. Data analysis shows that the usage frequen-

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cy of Sora by audiences is positively correlated with their identification with Western-style images; similarly, the usage frequency of Doubao is positively correlated with their identification with China-style images. Additionally, the cultural background of audiences significantly influences their preferences for generative AI content. Specifically, audiences with China cultural backgrounds prefer Doubao more, while those with Western cultural backgrounds prefer Sora more. This finding provides important empirical support for understanding the cognitive shaping mechanisms of generative AI.

4.2.1 Frequency of exposure is a prerequisite for exerting cognitive effects on the audience: subtle and imperceptible influence

The influence of media on audience cognition is not instantaneous but is achieved through continuous and frequent exposure, gradually shaping and reconstructing cognitive frameworks. The theory of acculturation was initially proposed by Gerbner to reveal how television media, through long-term and stable symbolic output, enables audiences to form a worldview consistent with the media's presentation. This theoretical logic has gained new validation in the era of generative AI. Data analysis shows that audiences who frequently use generative AI exhibit aesthetic preferences and cultural identities highly aligned with the cultural background of their society. This phenomenon precisely reflects the “cumulative effect” emphasized by the theory of cultural acculturation, meaning that when audiences repeatedly encounter Western-style images generated by Sora, Western aesthetic standards gradually become internalized as references for their aesthetic judgments. Similarly, the sustained use of Doubao reinforces audiences' identification with China-style imagery.

It is noteworthy that generative AI's cultural assimilation mechanism fundamentally differs from traditional media. While conventional television media achieves cultural assimilation through fixed program content, generative AI reinforces audience cognitive schemas through algorithm-generated infinite content variations during each interaction. Through repeated engagement, audiences not only develop preferences for specific cultural styles but also continuously update their technical understanding of AI itself. In other words, AI has evolved from an initially mysterious technological entity into a commonplace cognitive partner in daily life. This dual cultural assimilation of content styles and technological systems constitutes the unique mechanism through which generative AI influences audience cognition.

4.2.2 Audience cultural background acts as an “accelerator” for effect realization: the selective mechanism of audience psychology

Audiences are not passive recipients of information but active interpreters of meaning. Data analysis reveals that when using AI, audiences tend to readily accept generated content with high cultural affinity, while displaying neutral, resistant, or even skeptical attitudes toward AI-generated material from dissimilar cultural contexts. This selective exposure, selective comprehension, and selective memory patterns demonstrate how audiences prefer information consistent with their existing beliefs, avoid contradictory content, and interpret information through cognitive frameworks that align with their preconceptions.

Cultural background plays the role of a “cognitive filter”in this process. When audiences with a China cultural background encounter the Eastern characteristic images generated by Doubao, their existing aesthetic schemas and cultural identities are activated, resulting in a “cognitively smooth”psychological experience,

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thereby leading to higher acceptance and a sense of identity. However, when faced with Western-style images generated by Sora, the cultural distance triggers cognitive discomfort and psychological defense in the audience. This mechanism implies that the impact of generative AI on audience cognition is more reflected as "reinforcement" rather than "reversal". By continuously outputting content consistent with the audience's existing cultural background, generative AI reinforces their original aesthetic preferences and cultural identities rather than altering their fundamental cultural stance.

4.2.3 Audience as market: a deep dive from the perspective of audience-centric product theory

From the perspective of Audience Commodity Theory, every user interaction on generative AI platforms constitutes not merely content consumption but also value creation. As scholar Smits observed, audiences essentially engage in "labor" when consuming media content—transforming their attention into monetized commodities sold to advertisers. In the generative AI era, this dynamic takes on new dimensions: user behavior now involves not just attention expenditure but active data contribution. Every content generation request and feedback selection continuously trains and refines AI models, enabling them to more accurately align with preferences within specific cultural demographics.

In this context, the influence of audience cultural background on content preferences can be better understood not as a result of active audience choices, but rather as a process of mutual conditioning between platform algorithms and user preferences. Platforms continuously reinforce content generation patterns aligned with audience cultural backgrounds through data feedback, creating a "preference- reinforcement-renewed preference" cyclical mechanism. This mechanism enables generative AI to exert dual effects on audience cognition: sustained high-frequency usage enhances cultural assimilation, while maintaining selectivity—where cultural background acts as a cognitive filter guiding content consumption directions.

In summary, generative AI demonstrates dual characteristics of cumulative and selective effects on audience cognition. The cumulative effect manifests as positive reinforcement of cognitive attitudes through usage frequency-higher exposure correlates with deeper identification. Selectivity emerges from cultural background moderating content preferences, as audiences tend to favor content aligned with their cultural contexts. These mechanisms operate synergistically rather than independently: audiences select specific AI tools based on cultural backgrounds, while continuous use internalizes the cultural symbolic systems embedded in these tools, thereby reinforcing their inherent cultural identity and aesthetic preferences.

It is noteworthy that generative AI is not a neutral technological tool, but rather a cognitive shaper carrying specific cultural biases. Through continuous interaction with audiences, it not only responds to their existing cultural needs but also reinforces their established cognitive frameworks, creating a bidirectional cultural reproduction mechanism of "technology-audience"co-construction. Consequently, as artificial intelligence becomes increasingly embedded in daily life, technology has evolved from being merely a carrier of culture to becoming an active architect and disseminator of cultural identity.

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4.3 Technological iteration and cultural expansion: a re-examination of the cognitive shaping mechanism of generative AI

Generative AI's impact on audience cognition exhibits dual characteristics of cumulative effects and selective influence. Against the backdrop of rapid technological iterations, this mechanism is being elevated to deeper dimensions of cultural construction. Particularly with the continuous evolution of generative AI, the emergence of next-generation video generation models represented by Sora signifies a paradigm shift in visual identity construction by Western algorithmic companies-from “static images” to “dynamic narratives.” This technological advancement has expanded Western image implantation strategies from individual portraits to comprehensive life scenarios, behavioral patterns, and emotional expressions, thereby establishing a more systematic and covert cognitive shaping mechanism on a global scale.

From the perspective of media constructivism, the essence of video generation models like Sora lies in the algorithm's transformative capacity as a reality constructor. While static image representation remains confined to “instantaneous snapshots,” video generation achieves narrative construction through “spatiotemporal continuity.” When Western characters walk, converse, live, and work in AI-generated videos, the cultural symbols they embody transcend passive visual elements, forming narrative systems with causal logic and emotional resonance. This dynamic storytelling exerts a more profound cultural assimilation effect on audiences than static imagery. Viewers not only observe "what Westerners look like," but subconsciously internalize “how Western lifestyles operate” and “what behaviors are natural, modern, and desirable.” In this sense, Sora transcends being merely an image generator-it becomes a global disseminator of Western lifestyles and cultural values.

Gebner noted that television media, through sustained and stable symbolic output, helps audiences develop worldviews aligned with media representations. Today, video generation models like Sora are establishing a “super-acculturation” mechanism that transcends traditional media, leveraging their infinite generative capabilities and hyper-realistic rendering effects. When Western images are repeatedly presented to global audiences in massive, diverse, and context-dependent forms, the embedded aesthetic standards, body aesthetics, and social relationships within these images gradually solidify into "taken-for-granted" reference frameworks within audience cognition. More crucially, this acculturation process often manifests as technically neutral and creatively free, resulting in cultural biases that exhibit greater permeability and concealment.

Smyth, the proponent of audience commodity theory, once observed that audience attention is commodified by media and sold to advertisers. In the era of generative AI, this logic has undergone profound transformation: every interaction and feedback from audiences using platforms like Sora not only contributes attention but also generates training data-data used to optimize algorithms for producing videos that align with Western aesthetic paradigms. This means that while consuming Western imagery, audiences are simultaneously contributing unpaid labor to help Western algorithmic companies continuously refine their technological infrastructure for cultural export. This mechanism elevates cultural expansion from "content dissemination" to “ecosystem construction,” where audiences serve as both recipients of culture and providers of raw data for cultural reproduction.

In conclusion, with the rise of new-generation video generation models such as Sora , Western algorithmic

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companies are embedding Western imagery into the global audience's consciousness with unprecedented systematicness and concealment. This process is not only a demonstration of technical capabilities but also an exercise of cultural power. For China's cultural entities, only by deeply understanding this mechanism can they establish a response strategy that combines cultural confidence with technological awareness in the global cultural competition of the generative AI era.

4.4 Coping strategies: audience perception guidance in international communication during the AI era

In response to the increasingly evident cultural biases and cognitive shaping effects of generative AI in image construction and international communication, this paper proposes the following countermeasures.

First, enhancing audience algorithmic literacy and critical awareness. The cumulative nature of media effects can be exploited by technological capital or resisted through audience media consciousness. Media literacy education should help audiences understand the algorithmic logic and cultural biases of generative AI, cultivating their ability to critically interpret AI-generated content. When audiences recognize that Western images produced by tools like Sora are not "natural" representations but algorithmically constructed from specific cultural perspectives, their selective psychological mechanisms may shift from "unconscious preferences" to "conscious scrutiny," thereby breaking the one-way cognitive reinforcement cycle.

Second, build an autonomous and controllable generative AI technology system. The audience commodity theory reveals the structural inequality of audience attention and data being freely appropriated by commercial platforms. The fundamental solution to this issue lies in developing China's autonomous generative AI technologies and platforms. Based on domestic models such as Doubao, continuous investment in technology research and development should be made to build full-modal generation capabilities covering text, images, and videos, forming a technical ecosystem on par with Western algorithmic companies. Only by achieving autonomous control at the technical infrastructure level can we fundamentally safeguard the subjectivity of China's cultural image in global communication.

Third, innovate AI expressions and international communication strategies for China culture. To counter the cultural implantation by Western algorithm companies, we should not merely adopt defensive measures but also actively build solutions. It is essential to promote in-depth collaboration between China cultural institutions and AI technology enterprises to develop generative AI applications with a core of China culture, providing high-quality and diverse content to enrich global audiences 'perception of China's image. Meanwhile, we should conduct in-depth research on the selective psychology of audiences from different cultural backgrounds and design targeted segmented communication strategies to ensure China's cultural image aligns with audience cognitive frameworks while achieving effective dissemination.

Fourth, strengthen algorithm governance and ethical norms in international communication. At a broader level, efforts should be made to promote the establishment of a multilateral dialogue mechanism among the international community on the ethics and governance of generative AI, advocating for principles of algorithm transparency, cultural diversity, and digital sovereignty to prevent a few tech giants from achieving cultural hegemony through algorithmic monopolies. Through participation and leadership at the rule-making level, China's solutions should be contributed to global AI governance.

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In conclusion, in the face of the transformation of international communication patterns brought about by generative AI, it is necessary not only to achieve independent innovation at the technological level, but also to empower audiences at the cognitive level, and more importantly, to establish rules at the governance level. Only by forming a coordinated response of technology, cognition, and institutions can we achieve effective dissemination of China's culture and positive guidance of audience cognition in the AI era.

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