# Research on the Reconstruction and Communication Effect of Generative Artificial Intelligence on Communication Content: A Semiotic Perspective

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**Abstract:** Generative artificial intelligence, as an important transformative force in contemporary communication technology, is profoundly changing the generation mechanism of communication content and the implementation path of communication effects. From a semiotic perspective, this article explores how AI technology can reconstruct the symbolic construction logic, content form, and discourse power structure in communication content, and further analyzes its impact on audience perception, information reception, and feedback mechanisms, communication controllability, and uncertainty at the level of communication effectiveness. Research has found that the deep intervention of AI has led to structured, programmatic, and mimetic dissemination of content. The decoding path of the audience is becoming increasingly complex, and the feedback is more immediate but lacks depth. At the same time, it also brings potential risks such as unclear ethical responsibilities and decreased information authenticity. At the end of the article, a thinking path for future communication research and practice is proposed from four dimensions: ethical regulation, platform responsibility, human-machine collaboration, and disciplinary integration, aiming to provide a theoretical reference for building a more rational, standardized, and human-oriented AI communication environment.

**Keywords:** Generative artificial intelligence; Reconstruction of dissemination content; Dissemination effect; Semiotics; Discourse power; Human-machine cooperation

## 1. Introduction

Generative artificial intelligence technology has developed rapidly in recent years, and tools such as ChatGPT, Midjourney, Sora, etc. have been widely used in various communication scenarios such as news, advertising, film and television, and education. This type of technology not only improves the efficiency of content

generation but also fundamentally changes the symbol composition and meaning production mechanism of content dissemination, shifting from a process dominated by human experience to a mechanism driven by algorithms and models. In the context dominated by AI, communication content presents highly programmatic, mimetic, and multimodal characteristics, and traditional communication theories appear inadequate in the face of these new changes. At the same time, the dissemination effect has undergone profound changes due to the penetration of technology. The way information is received and feedback is gradually evolving from a linear dissemination model to a data-driven interactive feedback model. The audience's initiative in content interpretation is partially replaced by algorithmic recommendation mechanisms, and the uncertainty and controllability of dissemination are constantly strengthened in coexistence. Faced with the structural shift in communication logic, there is an urgent need for a new perspective that transcends technology and culture to provide theoretical explanations. This article is based on the theoretical framework of semiotics, focusing on the dual reconstruction of generative AI in terms of communication content and communication effects. It aims to clarify how AI intervenes in the process of meaning construction and how this intervention reconfigures the communication ecology in terms of discourse power, semantic orientation, and communication mechanisms. This provides theoretical support and practical reference for understanding the current "human-machine symbiosis" communication pattern.

## 2. Analysis of the reconstruction mechanism of generative AI for spreading content

### 2.1. Symbol construction logic in content generation

Generative artificial intelligence, guided by algorithms, re-encodes and reassembles symbols such as language, images, and sound in the process of generating disseminated content, forming a new type of symbol construction mechanism. In traditional communication activities, the meaning of symbols often relies on experiential and cultural contexts, while generative AI reshapes the relationships between symbols through technological means based on the probability distribution and semantic associations in big data corpora, making the generated content have the characteristics of "realistic simulation." This construction no longer relies on human subjective intentions, but rather manifests as a de-subjectification process of semantic production. The logic of AI-generated content relies on the inference and association of semantic fields within the model, and its output symbols often exhibit high consistency and fluency, but in terms of deep meaning direction, they show ambiguity and drift. This semantic drift stems from the instability of the symbol "signified", which often results in AI-generated content having multiple interpretation paths, increasing the complexity of disseminating content. The generation of symbols gradually breaks away from the constraints of the original context, forming a self-expanding system logic, thereby promoting the dual reconstruction of the dissemination content in terms of form and meaning [1].

### 2.2. Changes in content form

The intervention of generative artificial intelligence in the process of disseminating content not only changes the organizational logic of symbols but also significantly reshapes the form of content expression. Multimodal content, such as text, images, audio, and video, can be generated in a unified technological framework, breaking the boundaries of traditional media forms and presenting a trend of fusion and dynamism in the dissemination of content [2]. The content form is no longer limited by a single narrative logic, but more manifested as collage,

recombination, and mimetic expression, with strong technical style and generative features. Driven by this technology, the structure of content dissemination tends towards modularity and proceduralization, and the narrative rhythm and language style become highly standardized and controllable. Semantics are compressed, abstracted, and reconstructed in technical rules, making it easier for content to adapt to the needs of different platforms and algorithm recommendation mechanisms. The collaborative operation between multimodal content enhances sensory stimulation, enhances immersion and participation in communication, and also promotes a change in the audience's perception of content, shifting from linear understanding to multi-dimensional linking and fragmented splicing [3]. The reshaping of content form by generative AI has essentially facilitated a new communication ecosystem, with its core being the evolution of content and media integration guided by technological logic.

## 2.3. Reconstruction of discourse power in the content generation process

Generative artificial intelligence has brought fundamental changes to the discourse power structure of the content generation process. In the traditional communication system, the dominant discourse is held by content creators, media organizations, or authoritative discourse systems, and the release, interpretation, and guidance of information often rely on the cognitive framework and value stance of specific subjects [4]. In AI-led content generation, algorithms intervene in speech production unconsciously, using data training results as the basis for language generation, and constructing a "neutral" speech system based on probability distribution and technical parameters. The control of discourse is no longer solely attributed to individuals or organizations, but has shifted towards the designers and operators of platforms and models. Artificial intelligence models are trained based on a vast corpus of language, embedding ideological, cultural biases, or social structural metaphors that continue to permeate through content reproduction without being detected. This concealment enables AI to have powerful discourse construction capabilities during the generation process, but also blurs the boundaries of power and responsibility. The technology platform not only possesses the ability to filter and generate content, but also dominates the flow and distribution of information, becoming a new discourse intermediary and power center. The position of human authors in content generation and dissemination has been diluted, and the initiative of discourse has been transferred to technical systems and algorithmic mechanisms to a certain extent, forming a new discourse power structure centered on data and models [5].

# 3. Analysis of the impact of generative AI on communication effectiveness
## 3.1. Changes in audience perception and decoding process

Generative artificial intelligence drives changes in the form and symbol system of communication content, directly reshaping the audience's perception patterns and decoding paths. Faced with highly simulated content generated by AI, audiences no longer rely on traditional media experience for understanding, but rely more on identifying technical clues such as information form, style, algorithm recommendation background, etc. [6]. This recognition is based on sensitivity to content authenticity, source credibility, and semantic ambiguity, which means that the decoding process is becoming more complex and diversified, and the audience's understanding is no longer a linear restoration of information, but a reconstruction with selectivity, guessing, and uncertainty. The generated content often tends to be smooth in semantic structure, but there may be deficiencies in logical depth, emotional warmth, and factual basis, leading to misunderstandings or misinterpretations by the audience

during the decoding process. The surface completeness of AI-generated text or images masks the authenticity foundation of information, posing challenges to the audience's judgment and critical thinking when faced with disseminated content. The information overload and semantic saturation brought about by technology also prompt the audience's focus to shift towards the representation of symbols rather than the deep meaning behind them. Content consumption tends to be more focused on rapid acceptance and emotional response, rather than rational interpretation and deep understanding [7]. The dissemination effect is no longer solely dependent on the quality of the information itself, but also depends on the audience's cognitive ability to generate AI logic and the improvement of media literacy [8].

## 3.2. Changes in information reception and feedback mechanisms

Generative artificial intelligence has changed the way information is generated and fundamentally reshaped the audience's information reception and feedback mechanisms [9]. The audience is faced with content presentation optimized by algorithms, and their receiving path is often guided by the push logic and content sorting set by the platform [10]. The space for active selection is compressed, and the information receiving process is more passive and closed. This push mechanism enhances the matching degree between content and audience interests, but also exacerbates the emergence of "information cocoons" and "echo chamber effects", allowing audiences to continuously strengthen their original cognition within a limited perspective, and feedback tends towards homogenization and superficiality. In terms of the feedback mechanism, the platform structure driven by generative AI reconstructs the traditional propagation loop. User behavior data, such as likes, comments, and shares, has become an important basis for the platform to continuously optimize content generation and distribution, forming a data-driven instant feedback system [11].

## 4. Reflection on problems and future prospects
## 4.1. Ethical and normative challenges of AI intervention in communication

The widespread application of generative artificial intelligence in content dissemination has raised many ethical and normative challenges. AI has powerful generation capabilities, but lacks moral judgment and value discrimination. Its content output often makes it difficult to effectively distinguish between truth and fiction, which may inadvertently spread false information, mislead public cognition, and even exacerbate social emotional opposition [12]. In the absence of a clear review mechanism, AI-generated content may become an amplifier for rumors, biases, or extreme speech, posing a serious threat to the public and the security of information dissemination. The issue of responsibility attribution also constitutes the core of ethical disputes. When the content generated by AI triggers dissemination accidents or public opinion crises, the responsibility boundaries between creators, platforms, and model designers become blurred, and existing legal and ethical frameworks are unable to cope with complex and ever-changing technological situations. The anonymity and dehumanization of content generation have intensified regulatory difficulties, and traditional mechanisms for protecting rights such as copyright, reputation, and privacy are at risk of being sidelined. In addition, algorithmic bias and opacity of training data may also lead to implicit discrimination and cultural exclusivity in content output, further eroding the fairness and diversity of communication. In the context of rapid technological development, it is urgent to establish an ethical norm system that adapts to the context of generative AI, to ensure clear boundaries and values of communication behavior [13].

## 4.2. Responsibilities of content producers and platforms

The deep embedding of generative artificial intelligence in the communication ecosystem enables content producers and platform providers to take on more complex responsibilities in information governance [14]. Traditional content creators, when faced with AI tools, are often no longer a single expressive subject but have transformed into creators who collaborate with technology. In the process of content creation, how to control the quality of generation, ensure the authenticity of information, and identify potential risks has become a new issue that producers must face. Neglecting the review and intervention of AI output content may lead to the invisible spread of false narratives, inappropriate remarks, or copyright disputes, disrupting the order of communication. As the leading player in the application of AI technology and the core node of content distribution, the platform not only masters the data source and algorithm logic, but also has a decisive impact on the dissemination structure and audience contact mask [15].

## 5. Conclusion

The rise of generative artificial intelligence technology is not only an update of communication tools, but also a reconstruction of deep communication logic and symbolic order. In terms of content generation, AI has restructured the traditional language symbol system, presenting content with a strong technical style and structural norms; In terms of communication effectiveness, the audience's perception, feedback path, and interpretation of meaning are becoming increasingly complex, and the uncertainty and controllability of communication are synchronously increasing. The empowerment of technology has significantly improved communication efficiency, but it has also caused multiple problems, such as the transfer of discourse power, blurred ethical boundaries, and decreased information credibility. In the constantly strengthening communication context of technological logic, content creators and platforms should jointly bear the responsibility of symbol selection and meaning orientation, not only focusing on the generation of content itself, but also regulating and guiding its dissemination path, social impact, and value orientation. The integration of semiotics and communication studies will become an important path to understand new forms of communication and promote the construction of a more cautious, transparent, and sustainable communication ecosystem. In the future era of human-machine symbiosis, communication activities need to seek a balance between technological efficiency and humanistic spirit, constantly reshaping the boundaries and goals of public communication through the reconstruction of symbols and the rediscovery of meaning.

## Disclosure statement

The author declares no conflict of interest.

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