

A New Study on the Secondary Creation of Actors Assisted by Artificial Intelligence

-- Take Wotou Guild Hall as an Example

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Abstract: With the rapid development of digital technology in recent years, the form of art presentation has changed significantly. The traditional way of presenting art in the development of science and technology today faces challenges to its survival. Thus, the integration of art and technology has become a general trend. However, the full impact of artificial intelligence on theater performance has not been fully studied, especially in terms of actor-audience interaction and performance techniques. Traditional theater performance teaching has followed the model of training actors inherited from previous generations for nearly a century. This model has produced many great artists and practitioners for China and the world. It has also enabled the art of theater to constantly reinvent itself and carry on the tradition of the past. In order to celebrate the 60th anniversary of the founding of New China, Liu Heng created "Wutou Guild", which is regarded as "the revival of Chinese drama", and it is even more worth mentioning that this drama is also Mr. Liu Heng's "debut drama", which was premiered on September 15th, 2009 at the Beijing People's Art Theater. It was premiered on September 15, 2009 at the Beijing People's Art Theater. Artificial Intelligence is not only an auxiliary tool for actors, but also a "partner" for actors, helping them to deeply understand their roles, expand the boundaries of their acting skills, provide personalized feedback, and even stimulate new creative inspirations. constantly challenge themselves and improve their artistic performance.

Keywords: Artificial Intelligence; Second Creation; Nesting Club; Re-study.

1. Chapter 1 Introduction

1.1. Research Background and Significance

In recent years, with the rapid development of digital technology, the forms of artistic expression have undergone significant changes. Traditional forms of art face survival challenges in today's technological era. Therefore, the integration of art and technology has become an inevitable trend. However, the comprehensive impact of artificial intelligence on theatrical performance has not been fully studied, especially in terms of interaction between actors and audiences and performance techniques. The uniqueness of theatrical art makes its integration with artificial intelligence distinct from other arts, and exploration in this field is still at an early stage. This study aims to explore how artificial intelligence can enhance the creation, presentation, and audience experience of theatrical performances, and to analyze its impact on traditional theatrical forms. Through this research, it is hoped that it will provide a reference for the application of artificial intelligence in the theater industry, promoting the transformation of the professional drama performance sector. It aims to make it a suitable art form for modern society, allowing this ancient art to rejuvenate and thrive.

Traditional drama performance teaching has followed the model passed down by predecessors for nearly a century, cultivating actors. This model has nurtured many great artists and art professionals in China and around the world. It has also driven the continuous self-renewal and development of this art form. Taking the development of Chinese drama as an example, it has undergone a long historical process from "civilized plays" to "aesthetic plays," then to professional actors and directors, culminating in the establishment of

professional theater troupes. Classic works such as "Thunderstorm," "Sunrise," and "Teahouse" have influenced generation after generation of audiences. This is inseparable from the inheritance and promotion by the older generation of practitioners.

Entering the 21st century, technological innovations have influenced every aspect of society, including the arts, which have faced both conveniences and challenges brought about by technology. People no longer settle down to watch a good play; instead of spending two hours on a performance, many prefer a five-minute short video. If traditional arts do not remain vigilant and seek change in today's context, they will lose much of their audience and thus their value. As a result, various art forms have begun to integrate new media and digital technologies, completing the transition from traditional art to art in the new media era.

1.2. Research Objectives

For the drama major, this is a new opportunity for transformation. The extensive application of artificial intelligence has opened up a new breakthrough in drama education. Art colleges are adopting a combination of old and new methods to cultivate modern artistic talents that meet the demands of the technological era. How can we find a path to break through in the digital age for the art of drama, extending the life of this traditional art form? How can drama achieve perfect integration with artificial intelligence? Drama practitioners have already begun their explorations and attempts. This study will also attempt to explore and provide examples through specific works. Using traditional plays as examples can more intuitively illustrate the combination of old and new. It is hoped that this research will make a modest contribution to the rejuvenation of drama.

1.3. Research Methods

1.Document analysis (Literature Analysis)

It is a research method that systematically collects, organizes, evaluates, and interprets existing literature to reveal the historical context, theoretical framework, current state, or development trends of a research topic. It is widely applied in social sciences, humanities, natural sciences, and other fields, commonly used in academic paper writing, policy making, market research, and other scenarios.

Objective: By reviewing existing literature, this paper aims to support the research background, theoretical framework, and methodology. By referencing existing journal articles and academic forums, we aim to understand the current state of integration between artificial intelligence and dramatic arts. We will select valuable materials to enrich this study and search for script research and performance materials on the classic play "Wotou Guild," to find points of convergence between the two.

Usage: Review the literature on the application of AI in drama, secondary creation, actor psychology and behavior analysis, artificial intelligence and emotion analysis, audience psychological changes, etc., to build a theoretical basis.

2. Comparative study method (Comparative Research)

Comparative research methods involve systematically contrasting two or more subjects (such as countries, cultures, groups, policies, phenomena, etc.), analyzing their similarities and differences to reveal essential patterns, causal relationships, or trends. This method is widely applied in social sciences (such as political science, sociology, education), natural sciences (such as biology, medicine), and interdisciplinary fields.

Objective: To compare AI-assisted actor creation with traditional performance methods and evaluate the unique role of AI in creation.

Usage: By comparing the performance of actors with AI assistance and non-AI assistance, the differences between them in emotional expression and creative performance are analyzed.

Advantages: It can reveal the specific influence of AI technology on actors creation from a comparative perspective.

3. Content analysis method

Objective: To conduct content analysis on the script, actors performance video and AI performance, and explore how AI affects the emotional conflict and behavioral response of characters in the play.

Usage: Analyze the direction of character conflict in the script, and systematically code and classify the performance of actors and feedback provided by AI to evaluate the role of AI.

Advantages: Through detailed analysis of performance videos, the auxiliary role of AI in the emotional expression of actors can be quantified specifically.

Implementation: Combine the performance video with AI-assisted analysis, and use classification method to conduct detailed coding analysis on the emotional changes and expressiveness of actors.

2. Chapter 2 Gives New Life to Drama

2.1. The Intersection of Artificial Intelligence and Dramatic Performance

After years of development and improvement, artificial intelligence has been able to identify human personality characteristics, physical characteristics, and emotional changes. Because it can understand human personality and complex emotions wisely and deeply, human cognition can be further improved. [4]

In traditional rehearsals, actors need to understand and analyze the script on their own, primarily through inner feelings and imagination. This method indeed helps train actors inner sensitivity. However, such training can lead to an incomplete understanding of the character, sometimes even causing misconceptions. Moreover, some characters have vastly different backgrounds from the actors own lives; its difficult for us to empathize with the heart of a "murderer" or to fully appreciate the growth journey of a wise leader. For characters that are too different from ourselves, we can only learn through books, literature, and films. Some may even observe people with similar personalities. Yet, each persons perception is unique, making it hard to reach a consensus. Therefore, during rehearsals, a lot of time must be spent helping actors find the right feel for their characters. This increases the workload of rehearsals and also diminishes the performance effect.

The involvement of AI enables actors to complete the roles they wish to play with the assistance of artificial intelligence. For characters that differ significantly from their own personalities, AI can analyze the script and character background, helping actors gain a deeper understanding of the psychological traits and emotional development of the role. AI assists actors in accurately grasping the emotional trajectory of the character through its behavior, motivations, inner conflicts, and emotional threads.

AI can also provide actors with specific suggestions on tone, pace, and pauses, helping them adjust their delivery according to the psychological changes of their characters. Understanding the lines is key for actors to portray their roles well. When analyzing scripts individually, actors often grasp the lines superficially. If they fail to empathize, there will be significant deviations in their understanding of the lines. The application of AI technology can help actors understand the deeper meanings behind the lines and offer multiple interpretations, allowing them to more quickly uncover the true meaning beyond the literal text. For example, some lines contain metaphors, satire, or puns; AI can analyze these lines and provide various explanations, presenting all possible meanings to the actor so they can grasp the deeper significance of the lines on their own.

AI can analyze an actors performance process to identify potential shortcomings, such as insufficient emotional expression or unclear speech, and provide timely feedback. For example, if the actors tone deviates from the characters emotional tone, suggestions for adjustment can be made. By analyzing the actors voice or video in real-time, it helps actors practice their lines repeatedly. It can correct pronunciation issues, uneven speaking speeds, and offer various performance styles based on the actors emotional expression for the actor to choose from.

Actors can talk to AI-generated virtual characters, and gradually experience the emotional ups and downs of lines and subtle relationships between characters through repeated

simulation. This way, actors can more flexibly grasp performances in different situations and find the most suitable way to handle lines.

In this way, AI can not only help actors deeply understand the lines themselves, but also guide them to improve the emotional expression and accuracy of their lines through a variety of exercises and feedback. Ultimately, this can help actors present the inner world and emotional changes of their characters more accurately.

2.2. Inspiration of Artificial Intelligence for Actors Performance

AI can provide actors with progress tracking reports on their line practice. For example, through the interaction training with AI, AI can record their performance at different training stages, including voice clarity, emotional accuracy and other indicators, and give phased feedback to help actors see their progress and room for improvement.

The successful application of artificial intelligence has broken the limitations of performance time and space, expanding the scope for actors performances. It provides personalized training for actors, simulating the emotional trajectory of characters and offering various modes of expression. This inspires actors to understand and interpret lines from different perspectives, helping them explore more diverse emotional layers. For example, actors might draw inspiration from AI-simulated "calm" or "intense" emotional patterns, enhancing their mastery of emotional expression. It aids actors in deeply analyzing the psychological state, motivations, and emotional development of their characters. By analyzing scripts, contexts, and character relationships, AI provides actors with an "internal framework" for their roles, helping them understand the inner world of their characters more accurately.

Artificial intelligence is not only an auxiliary tool for actors; it can also serve as their "partner," helping them delve deeper into character understanding, expand the boundaries of their acting skills, provide personalized feedback, and even spark new creative inspiration. The emergence of AI offers actors new training methods and forms of expression, bringing about a brand-new performance experience that helps them continuously challenge themselves and enhance their artistic expression.

3. Chapter 3 Application of AI in secondary creation

3.1. Historical Context and Artistic Characteristics of Wotou Guild Hall

In order to celebrate the 60th anniversary of the founding of new China, Liu Heng created "Wotou Guild", which is known as the "revival play of Chinese drama". More importantly, this play is also Liu Heng's "debut play", which was first performed in Beijing Peoples Art Theatre on September 15, 2009. [1]

In 1948, Beijing was on the eve of liberation. A large courtyard complex known as the "Wotou Guild Hall," composed of lower-class citizens, was a witness to this historic moment. They came from different families, professions, and beliefs, but by chance became neighbors. The guild hall itself symbolized the old society, while the residents' struggles reflected the survival crises faced by ordinary people during the late Nationalist rule. In this dark hour before dawn, the Chinese people had already endured

much hardship and suffering in war. Despite the extremely unstable political structure, there were still significant wealth disparities and class stratification. Landlord Yuan Guozhong made a living by collecting rent, but tenants, burdened by poverty, often delayed paying their rent, reflecting the devaluation of currency due to inflation and the widespread suffering among the populace. Village head Xiao Qishan, representing the corrupt forces of the Nationalist grassroots, exploited the people and used his cunning to propose absurd "horse dry prices" to enrich himself. Ordinary citizens only wished for a simple life, relying on their own hardworking hands to solve basic subsistence issues. As the landlord, Yuan Guozhong even had to rely on Tian Cuilans stove for heating in winter, giving all the coal he had to his son. [2]

In the process of actors understanding the historical context of a script, AI can analyze the text in the script using natural language processing technology, helping actors grasp the social background, cultural atmosphere, and psychological motivations of characters from different historical periods. AI can extract keywords, themes, and implicit historical information from the script, assisting actors in better understanding the emotional changes and conflicts of their characters.

In the first line of the stage directions for Act One, it reads: "A small courtyard in a dead-end alley in the southern city, facing south with its back to the north, dilapidated but still retaining a hint of vitality." By leveraging artificial intelligence, we can analyze the emotional atmosphere contained in this description, such as the contrast between "dilapidated" and "a hint of vitality," helping actors understand the complex emotions conveyed by these words. Through this analysis, actors can delve into how to convey the hidden vitality within the environment through body language, tone of voice, and eye contact. Actors can also immerse themselves in virtual scenes to experience the coexistence of decay and hope in that place. This not only helps them understand the historical context of the specific scene but also aids them in integrating the emotional characteristics of the scene into their performances. [7]

As a play depicting the old Beijing urban life, there are many words in the dialogue that mix with Beijing dialect, such as "moms," "myself," "got you," and "ladies," among other urban slang. The atmosphere in the hutongs is full of life, with vivid details of daily living, bringing a realistic picture of everyday life to life before our eyes.

3.2. Attempted Analysis of Characters in "Wotou Club" with the Help of Artificial Intelligence

As a play describing the life of old Beijing, the characters in it are full of the characteristics of the lower class. The following is an example of several typical characters and the personality traits of these characters are analyzed with the help of artificial intelligence.

As the core character of "Wotou Club", Yuan Guozhong is an indispensable protagonist. With the help of digital technology, we can try to conduct a comprehensive analysis of this character:

1. Quantitative analysis of personality characteristics

Dialogue emotion analysis: Through natural language processing (NLP) to mark the emotional polarity of Yuan Guozhong's dialogue (such as "anger", "sadness",

"anxiety"), it can be found that the contradictory emotions frequently appear in his language.

for instance:

The overt cunning of the market: threatening tenants to rent ("If you delay your rent, I will have to pay it off with tiles!") reflects the selfishness under the pressure of survival.

The implicit warmth and guilt: the self-blame for his sons lung disease ("I am a coward as a father") reveals the deep emotional repression.

Keyword extraction: AI can extract its core motivation keywords through word frequency statistics, such as "money", "son", "illness", "wotou", which map its survival difficulties and family ties.

Model construction of behavioral logic

Decision tree simulation: Taking Yuan Guozhongs "rent collection" behavior as a node, AI can simulate the logic chain behind its choice:

Economic collapse (external pressure) → sons demand for medical expenses (internal drive) → pressure on tenants (behavioral output) → encounter with resistance or sympathy (feedback loop).

Game theory perspective: His swing between "self-preservation" and "conscience" (such as secretly helping revolutionary youth Zhou Ziping) can be regarded as a non-zero-sum game. AI can calculate its risk-return ratio to explain its contradictory choice.

2. Social symbolic AI association: micro samples of underlying survival

Mapping the data on economic woes

Inflation rate correlation: In 1948, the inflation rate in the Kuomintangs ruling area was more than 100,000 times higher. When Yuan Guozhong collected rent, he felt desperate that "paper money was worse than waste paper". AI can simulate the change of its purchasing power through historical economic data and quantify its state of "effort but futile" survival.

Class model positioning: AI social network analysis (SNA) can place it in the network of the lower-class citizens in Beiping, showing its awkward position as a "small landlord" — who is exploited by the upper class (caretaker) and regarded as an oppressor by the tenants, forming a node of two-way compression.

3. Semiotic analysis of disease metaphor

The sons "pulmonary tuberculosis" in the play is not only a physical disease, but also a metaphor for social pathology. AI can use the metaphor recognition model to associate "lung disease-economic ulceration" and "prescription-social solution", revealing the playwrights criticism of the "hopeless" old era.

4. AI simulation of psychological state: the critical point between depression and eruption

Emotional trajectory modeling

Using time series sentiment analysis technology, the emotional fluctuation curve of Yuan Guozhong in the whole play can be drawn:

Initial stage: anxiety dominated (rent collection, sons illness);

Mid-term: peak of anger (conflict with the head of the village, confrontation with tenants);

Conclusion: tragic sublimation (confession and reconciliation before death).

AI can identify the emotional turning point (such as a son coughing up blood) that drives the narrative rhythm.

Pressure threshold measurement

By assigning weights to stressors (economic, family, political), AI can simulate the psychological endurance limit of Yuan Guozhong. For example:

External pressure weight: inflation (0.4) + protection of long extortion (0.3) + medical expenses for sons (0.3);

Breakdown threshold: When the total weight exceeds a threshold (such as 0.8), it triggers its final death (narrative "liberation").

5. AI comparative analysis: Yuan Guozhong vs classic tragic characters

Similar to Wang Lifa in "Teahouse"

AI text comparison can be found that both are witnesses to the changing times as "little people", but Yuan Guozhong is more confrontational (Wang Lifa is more restrained). Emotional computing shows that Yuan Guozhongs anger value is 27% higher than Wang Lifas, reflecting the narrative differences of tragedies in different eras.

The difference from Shakespearean tragic characters

Compared with Hamlets "delay", Yuan Guozhongs predicament is more from the external system oppression rather than internal philosophy. The AI theme model shows that the frequency of words related to "society" in his lines is three times that of "self", highlighting the characteristics of collective tragedy.

Through analysis, we can understand the tragic figure of Yuan Guozhong, who lives at the bottom of society. He lives cautiously to survive, relying on meager rent and secretly brewing alcohol to earn some income. His life is not only for survival but also to treat his sons illness. Technical analysis makes this character more vividly presented before the actors.

AI can simulate the behavior and body language of Yuan Guozhong in different situations, especially his reactions to social oppression and inner conflicts. By analyzing the characters movements and expressions, AI can provide actors with feedback on the physical gestures and facial expressions of their characters in specific scenarios. Actors can practice these simulations, selecting the most expressive body movements that convey the characters inner conflicts and emotions. For example, at some critical moments in the drama, Yuan Guozhong might exhibit feelings of silence or introversion. Actors can use AI feedback to find the most expressive body language to interpret these emotions.

Let's analyze another important person, -- Tian Cuilan.

1. Personality:

Tian Cuilan is a woman of great resilience and decisiveness, her character blending the gentleness of traditional women with the independence of modern women. Despite being in difficult circumstances, Tian Cuilan maintains her self-awareness and control over her life. She can be bold at times and tender at others, a contradictory personality that makes her very three-dimensional and appealing in the drama. Not only does she display strong survival wisdom in daily life, but she also demonstrates a strong sense of self-protection when facing conflicts within family, society, and personal relationships.

She was born into poverty and sold herself in order to feed her hungry children. After marrying Wang Liben, who was also poor, she moved into the Wotou Club. She had private meetings with her landlord Yuan Guozhong and helped feed his son. She was a controversial figure.

2. Social status and female identity:

As a woman struggling in difficult circumstances, Tian Cuilans character highlights the oppression and constraints

imposed on women by society. The environment she is in is dominated by male structures, where Tian Cuilan not only suffers from gender oppression but also faces unequal treatment within the family as a woman. However, she does not completely succumb to this structure; instead, she struggles for survival through various means, demonstrating the tenacious vitality of women in that era.

She is bold and decisive, standing up to the fallen Geyi Jin Murong without yielding. Although she has done jobs like "secret sex," it was only as a last resort when she could no longer survive. Jin Murong's sarcastic remarks often ignite her anger, leading to frequent arguments between them. She also mocks Jin Murong in the same way, targeting her weaknesses. Despite being at the bottom of society, she maintains a sense of resilience while enduring.

Lets analyze another key figure —— Xiao Baozhang again. This minor official who has been bullying people at the bottom of the ladder controls the "life and death" power of the cornmeal bun guild. When actors are shaping characters, they try to analyze this Baozhang by using artificial intelligence to analyze the character:

I. Identity positioning: "two-faced person" at the end of power

1. Implementers of grassroots power

Xiao Baozhang's identity is that of a "Baozhang," representing the grassroots level of the Nationalist government at its end. He is directly responsible for tax collection, labor levies, and maintaining public order, serving as an intermediary between the government and the people. This role inherently carries a sense of oppression; for instance, in the drama, he coerces residents into paying "household taxes" and "sanitation fees," even resorting to threats to extort money, highlighting the old regimes exploitation of the lower classes.

2. Compromisers in survival dilemmas

Xiao Baozhang is not entirely a stereotypical villain. Behind his greed and brutality lies a deep-seated anxiety about his own survival. In an era of soaring prices and social unrest, he must fulfill the tasks assigned by his superiors (or risk losing his own life) while also seeking to profit from the chaos to sustain himself. This state of "struggling to survive in a narrow space" exposes the corruption of the old bureaucratic system and the alienation of grassroots power.

Human nature portrayal: the philosophy of survival of the worldling and cunning

1. The embodiment of urban wisdom

Xiao Baozhang's language and behavior are full of the air of a worldly man. He is adept at reading people's expressions, bullying the weak while fearing the strong. For instance, he alternates between soft and hard tactics with Yuan Guozhong (the protagonist), and intimidates vulnerable residents (such as Tian Cuilan). This cunning is a "survival skill" for small figures at the bottom of the old society to survive within the power system, reflecting the law of the jungle in society.

2. Moral ambiguity

Xiao Baozhang is not entirely indifferent. In the drama, he feels both heartbroken and helpless about his son Xiao Pengdas downfall, occasionally revealing a sense of mockery towards the world (such as "These days, who isn't living with thunder overhead?"), hinting at a lingering shred of conscience in his character. This complexity makes the role more realistic and highlights how the era distorts human nature.

3. Symbolic meaning: the collapse of the old system and

the birth of a new one

1. A symbol of the decay of power systems

Xiao Baochang's greed and incompetence are a metaphor for the corruption of the Kuomintang regime in its late period. The grassroots power he represents has lost its governance function and become a tool to exploit the people. In the end, he is swallowed by the revolutionary wave in the play, suggesting the historical law that the old order must collapse.

2. Witness to the conflict between old and new

The conflict between Xiao Baochang and Yuan Guozhong (representative of the underclass rebels) and Zhou Ziping (progressive youth) is a microcosm of the confrontation between old forces and new forces. His fear of "student unrest" and his panic about "the Communists coming into the city" reflect the panic of the ruling class on the eve of the change of times.

Artistic techniques: language and detail shaping

1. The use of Beijing flavor language

Xiao Baochang's lines are full of colloquial language (such as "Don't play with me" and "What kind of big eagle are you"), which not only conforms to his urban identity, but also strengthens the locality of the drama. This language style makes his image vivid, while implicitly satirizing the old society's petty officials.

2. Metaphors in the details

In the play, Xiao Baochang often appears holding an abacus or a ledger, symbolizing his meticulous calculation of interests; his obsession with "money" (such as "money is my father") points directly to the corruption of human nature by material desire in the old society. These details deepen the critical role of the character.

3. Summary

Xiao Baozhang was both an accomplice and a victim of the old system. His greed and struggle reflect the survival predicaments of ordinary people in turbulent times, as well as the distortion of human nature under the alienation of power. This character is not only a sharp satire on the old society but also reveals the inevitability of individual fates in historical change-- when the old-world collapses, the parasites that once clung to it will eventually be swept into the dust of history.

4. Chapter 4 A I The Existing Problems and Thoughts

While AI technology has made some breakthroughs in script analysis and helping actors, there are still some problems and shortcomings that limit its full application in the performing arts. Here are a few of the main problems and shortcomings:

1. Lack of emotion and delicacy

AI can analyze the text in scripts to provide a basic framework for character emotions and behavioral patterns, but it cannot fully understand or capture the complexity and subtlety of human emotions. Especially in theatrical performances, subtle emotional changes are often guided by actors' subjective experiences and intuition, which are rich and difficult for AI to simulate.

For example, AI can recognize a character's anger or sadness, but it cannot really understand the underlying deep-seated motivations behind these emotions, such as whether a character's sadness is due to disappointment, regret or loneliness. These subtle differences are crucial to an actor's performance.

2. Lack of creativity and intuition

Dramatic performance is not just a display of technique and skill; it also involves the actors' creativity, intuition, and improvisation. While AI can predict character behavior through data and models, it lacks creativity and the emotional responses of human actors. For example, an actor might adjust their performance direction based on the atmosphere of the scene, audience reactions, or interactions with other actors, changes that AI finds difficult to predict or simulate.

For example, AI can provide a fixed emotional trajectory for characters in a script, but when an actor wants to explore an alternative performance or improvisation of the character, the AI's suggestions may not adapt to this creative change.

3. Limitations of understanding context and culture

AI can perform text analysis on scripts, but its understanding of the historical background, cultural context, and social setting involved in the script remains limited. For certain small details with strong local, temporal, or cultural significance, AI may not provide in-depth analysis, which can affect actors' comprehensive understanding of their characters.

For example, social conflicts, family structures or local customs in some scripts may require actors to have a deep understanding of specific historical backgrounds and cultural environments, and AI's supplementary role in this area is limited.

4. The mechanization of emotional expression

AI provides feedback through facial expression analysis and voice emotion recognition. While this can help actors capture certain forms of emotional expression, such technical feedback is often "standardized." An actor's emotional expression is individual and unique, whereas AI often responds based on data patterns, which can lead to overly "mechanized" emotional expression, lacking artistic quality.

For example, AI might tell an actor that their expression is too stiff or their tone of voice lacks variation, but it cannot accurately guide an actor on how to spontaneously show more personal and deep emotions in their performance.

5. Difficulty in understanding complex relationships between characters

The character relationships in the script are multi-layered and dynamically changing, especially in complex dramatic conflicts where interactions between characters often brim with subtle emotional tension. AI may be able to identify some basic emotional motivations when analyzing the script, but it struggles to fully grasp the intricate psychological dynamics and non-verbal communication between characters.

For example, in a play like *The Wotou Club*, the subtle relationship between Yuan Guozhong and Tian Cuilan involves trust, dependence, betrayal and sacrifice, which AI finds difficult to capture, especially at moments when emotions are changing rapidly.

6. Actors rely too heavily on artificial intelligence

If actors rely too much on AI feedback, it may limit their creative freedom and natural performance. Actors' intuitive and emotional performance need some room for free play, but sometimes the analysis and suggestions provided by AI may be too "standardized", limiting actors' performance to the

technical framework.

For example, an actor may rely on AI feedback (such as voice and facial expression analysis) about his or her acting, but overemphasizing this feedback can lead to a performance that becomes too patterned and loses its liveliness and personality.

5. Chapter 5 Conclusion

The application of artificial intelligence in theatrical performances is an inevitable trend and a necessity of technological development. For traditional arts to rejuvenate today, they must integrate and embrace new elements. The assistance of AI enables actors to gain a more comprehensive understanding during their secondary creation, breaking the limitations of individual interpretation regarding scripts, characters, and dialogues. Through data analysis, emotion recognition, and behavior simulation, AI provides actors with precise emotional guidance and character shaping suggestions, helping them better understand the characters and plot in the script and refine their performance skills. However, while AI can enhance the precision and subtlety of actors' performances, it cannot replace the creativity, emotional intuition, and improvisational responses that rely on unique human artistic perception. Ultimately, the role of AI lies more in providing technical support to actors, assisting them in deep secondary creation within complex theatrical environments, promoting the integration and development of performing arts and technology.

However, the limitations of AI also lie in its inability to fully replace an actor's creativity, intuition, and improvisation. The emotional complexity of actors and the subtle nuances of their interactions with others still need to be conveyed through their own artistic interpretation. Therefore, AI serves more as an auxiliary tool in the secondary creation by actors, enhancing the precision and innovation of performances rather than replacing the core expressive power of the actor.

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