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"Expansion" and "Obstacles": The New Wave of Intelligent Media Empowering the Development of Film and Television Arts with Digital Technology

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Abstract: ***Objective:*** ***With the profound transformation and upgrading brought by the new wave of intelligent media and digital empowerment, artificial intelligence is reshaping various aspects of art, including creation, distribution platforms, dissemination channels, and feedback effects. Firstly, personalized, innovative, and diversified artistic creation processes, along with intelligent, customized, and precise artistic dissemination processes, are cultivating "new aesthetic hotspots" in the era of intelligence. Secondly, amidst the landscape of technological change, ideological and ethical issues have become increasingly prominent, revealing the risks and obstacles of the "Artificial Paradise". Methods: Using the literature review method, conduct a comprehensive discussion on the new landscape of Film and Television Arts development. Conclusions: In response to these new changes and trends, the development of film and television arts in the era of artificial intelligence requires the anchoring of new policies and measures.***

Keywords: Intelligent Media New Wave; Artificial Intelligence; Film and Television Arts; Image Narration.

1. INTRODUCTION

With the profound transformation and upgrading of science and technology, the emergence of technologies such as artificial intelligence, big data, cloud computing, and blockchain has propelled today's society from the "Cloud Era" to the "Large Model Era." ChatGPT, which has recently sparked widespread discussion both domestically and internationally, is the most representative artificial intelligence of the "Large Model Era." Indeed, ChatGPT has provided the public with a new "AI imagination" through its high performance that far exceeds users expectations, even directly stirring multiple domestic and international tech giants like Microsoft, Google, Facebook, and Baidu to invest in AI research. For instance, Microsoft took the lead in releasing its newly developed search engine "Bing," while Google introduced "Bard," which supports experimental conversational AI services, and Baidu similarly unveiled its AI-generated conversational product "ERNIE Bot." This "algorithmic revolution" triggered by ChatGPT aligns with the social development needs of intelligence, mobility, visualization, and socialization, formally establishing the dominant position of the intelligent era.

2. RESHAPING THE ARTISTIC ECOSYSTEM: THE "ALGORITHMIC EFFECT" TRIGGERS TRANSFORMATIONAL TRENDS.

Driven by real-time dynamics, immersive interaction, AI generation, and algorithm recommendation, artificial intelligence is accelerating its involvement in the field of art. In other words, a new era of artificial intelligence is shaping a disruptive landscape for art development, posing the development requirement of "digital survival." Digitization is a key characteristic of the AI era and an important driving force for artistic production. The requirement of "digital survival" essentially guides the public to further consider how artistic production mechanisms and development models can adapt to the digital revolution triggered by the "algorithmic effect." For example, China is promoting the "Cultural Heritage Conservation by Digitization," which mainly refers to "converting, reproducing, and restoring cultural heritage into shareable and reproducible digital forms using digital technologies such as digital acquisition, digital storage, digital processing, digital display, and digital dissemination, and interpreting them from new perspectives, preserving them in new ways, and utilizing them based on new demands [1]." This approach of recording, preserving, displaying, and disseminating China's cultural heritage by establishing digital museums and databases is precisely how artistic producers are actively responding to the development requirements of the AI era.

2.1 Digital Empowerment of the New Cinematic Space: "Metaverse"

With the evolution of technology and the opening up of ideas, the "algorithmic effect" supported by big data is further integrating "technology + art" to shape heterogeneous imaging spaces through human-computer collaboration. Initially, AI was positioned as a machine for handling mechanical and repetitive tasks, such as IBM's "Watson" and the VIVA composing program. At this stage, its involvement in image narration was superficial and representative, serving only for instructional processing tasks like editing, scoring, and special effects. Subsequently, the functionality of AI was extended, invoking self-awareness and evolving into intelligent models with large-scale databases and high computing power, such as the chat-based ChatGPT, script-based Dramatron, and video-based Sora. AI has met humans' comprehensive needs for image narration in a step-by-step manner, no longer merely responding to instructions but further becoming instruction issuers. It even extracts multimodal fragments to self-generate the Metaverse, outlining a new cyberspace distinct from the real world and presenting a brand-new worldview through images as the medium.

In the evolution of the new wave of intelligent media, the Metaverse can be seen as the main frontier of innovation. For example, The 19th Asian Games Hangzhou utilized "5G+XR" to present digital events, with animated "XR" tickets, XR live broadcasts in CCTV studios, and ceremonies featuring "digital torchbearers" and "trendsetters" collectively drawing the blueprint for "cloud competitions." Users are gathered in digital communities, replicating the entire event process in the cloud to achieve the visualization of the image-based Metaverse. The Gulangyu Metaverse leverages XR virtual studios, film and television AI Digital Human, Ultra High-Definition Autostereoscopy 3D, and other technologies to empower the transformation of the film and television industry towards virtualized filming, digitalized production, and immersive experiences. By integrating symbols, language, and other signifiers, it strives to present the original ecology of Gulangyu and showcase its technological hard power and cultural soft power as the "first island of the Metaverse." Films like "The Matrix", "Ready Player One", and "Everything Everywhere All at Once" bring the Metaverse to the screen, connecting the "imagined community" of dazzling special effects, cutting-edge terminals, blockchain-based virtual digital humans, and grand values to both virtual and real worlds. This allows the Metaverse to transcend dimensions, cultures, and even digital boundaries, blurring the line between the virtual and the real. The Metaverse decentralizes and constructs a new cyberspace within carnivalesque, adhering to the principles of interaction and sharing to build a public domain space. It is committed to creating a collective virtual space with equal discourse power, paying attention to the subversion of "coronation" by jokers and the utopian illusion of freedom's constraints.

2.2 Digital Empowerment Refreshes Film and Television through Multimodal Integration

In recent years, the application of digital empowerment through multimodal integration has been frequent and impressive. For instance, some scenes of "Huanghe Road" in the film "Blossoms Shanghai" were created with the assistance of XR and VP technologies, utilizing cutting-edge techniques in the studio to recreate the vintage atmosphere of old Shanghai, fulfilling the director's vision and meeting audience expectations. During the Spring Festival Gala of the Year of the Dragon, the Xi'an sub-venue presented images of Li Bai from "The Longest Day in Chang'an" and Zhang Ruoyun, the actor who portrayed Fan Xian in "Joy of Life," taking up the wine cup and chat merrily, using "AR + cultural tourism" to engage with China's 5,000-year history. The League of Legends S10 tournament employed XR live broadcasting, rendering cyberpunk-style scenes such as a sky city and a flooded stage, allowing viewers to experience the excitement and passion across dimensions. The evolution of the XR ecosystem has refined more visuals that serve the narrative of images, accompanied by interactive and avant-garde designs applied to various industries and fields, including industrial, military, medical, educational, film and television, and cultural tourism, helping creators communicate more intuitively and immersively with recipients, sensing and realizing the original concepts in their minds. At this stage, the involvement of XR often signifies the forefront of digitization and the iteration of imagery, reflecting the prosperity of comprehensive national strength and the media industry, while also encompassing realistic reflections and artistic philosophy.

Currently, although artificial intelligence technology is still at the stage of being an auxiliary tool, it can assist in artistic production through data instructions and algorithm generation, possessing certain capabilities in artistic creation and dissemination. Specifically, the replicable, reconfigurable, and computable nature of digital technology can innovate the creation of artistic information and efficiently improve the production efficiency of artistic works. However, it should be noted that even with human algorithmic instructions, works produced by artificial intelligence are not emotional or historical products but can only be termed as "replicas" that have lost the "aura" of art. Furthermore, the emergence of new technologies is bound to trigger changes in dissemination mechanisms and forms. Some scholars have used more concrete expressions to support this notion, arguing that

"the first half of the data and algorithm-driven content distribution revolution, represented by TikTok, has been followed by the premature opening of the second half of intelligent dissemination with ChatGPT, rapidly entering the era of AI-generated content (AIGC) [2]." The concrete practice of media-driven art dissemination through big data not only satisfies audiences' aesthetic needs for interactivity, immersion, and virtuality but also strengthens the relationship between platforms and audiences, as well as between artistic works and recipients, through intelligent and personalized recommendations of artistic information. Evidently, the intervention of the artificial intelligence era in the artistic field mainly focuses on automated, efficient, diversified, and innovative content production, as well as precise, customized, systematic, and patterned dissemination and distribution, triggering an "innovation in production" and a "paradigm shift" in art.

3. "NEW AESTHETIC HOTSPOTS" IN THE INTELLIGENT ERA: THE EXPANSION OF TECHNICALITY AND MATERIALITY

The most prominent feature of the intelligent era is the use of AI algorithms to expand the breadth and depth of artistic production. The extension of technicality and materiality has shifted artistic production towards a trend of high-quality, precise, and innovative creation. New products that "break through barriers" and "sail on borrowed boats" continue to emerge, building "new aesthetic hotspots" in the intelligent era and providing opportunities for audiences to understand, perceive, and share.

3.1 Technological Innovation: The Leap in Content Production Methods Driven by New Quality Productive Forces

The iteration of technology signifies an innovation in productivity. In the new wave of intelligent media, new forms of productive forces empower high-quality development and serve as crucial elements in advancing Chinese-style modernization, with AI being the main force among them. Space and the body are extended, and digital media transcends to become the hub of human audiovisual synesthesia. The overlapping of time and space and the reorganization of cognition derive exotic image spaces of imagined communities. As the dominant force in digitization and the collager of information, AI gradually becomes the manipulator of this interactive space. The implosion of the global village presents a concentrated trend of interconnectedness among all things, indicating the transition from physical beings to digital beings, with souls uploaded to the cloud and embodied in digital forms. AI is stripping away people's sense of reality and empowering them with a utopian sense of virtuality. As virtual reality becomes more realistic, the sense of virtuality diminishes, and the true simulation of virtuality genuinely requires the continuous development of new forms of productive forces. The digital content they forge is a manifest feature reflecting the mode of production.

The production mode of digital content exhibits cross-dimensional evolution. Initially, it was PGC (Professionally Generated Content), which tended to be small in volume but refined, catering to single or multiple users' professional experiences, such as long videos similar to China's MOOCs or educational videos produced by Bilibili's educational bloggers. Next came UGC (User Generated Content), which leaned towards a large volume and comprehensive content, targeting community-based multi-user interactions where users act as both transmitters and receivers, exemplified by platforms like Little Red Book and Weibo, featuring instant and diverse content. Then, AIUGC (AI-assisted User Generated Content) emerged, characterized by large-scale production and designed for immersive interactive video communication, such as voice-to-text functions in iFLYTEK and Tencent Meeting, AI dubbing for video accounts, and auxiliary content generation for news accounts, demanding high programmatic batch processing capabilities from AI. Subsequently, AIGC (AI Generated Content) appeared, with its production capacity expanding exponentially, capable of providing users with a Metaverse-level immersive experience. Examples include "world-like models" such as ChatGPT and Sora, which evolve through mirrored logical points, undergoing nested iterations of simulating consciousness, life, and the Metaverse, absorbing multimodal content to create a comprehensive "other world," achieving a qualitative leap. They are no longer constrained by human instructions but generate instructions at the same level as the soul.

The expansion of technicality has become the most typical symbol of the artificial intelligence era, permeating through various stages of artistic content creation, production, distribution, and playback. By leveraging the convenience of technology, a new creative space is constructed, achieving a perfect fusion of technology and art. For instance, addressing challenges in variety show production such as short production cycles, large volumes of material, high editing requirements for laughter and highlights, excessive time consumed in uploading and transcoding, as well as the need to manage the production of derivative content, the iQIYI technical product team utilizes AI to edit audio and video. By setting program tags and algorithm frameworks, they automatically screen

and filter vast amounts of material footage, store, organize, and annotate key materials, significantly enhancing the production efficiency of artistic products. Furthermore, iQIYI is dedicated to researching AI speech conversion and synthesis technology, launching its self-developed dubbing platform "IQDubbing." The platform's voice library not only includes multiple languages such as Thai and Vietnamese but also maximizes the preservation of the original voice texture and emotional quality, achieving high-quality dubbing effects where "one person can play multiple roles" (as shown in Figure 1). "For a 45-minute TV episode, dubbing completed based on this mode takes only about one-sixth of the total time required for manual dubbing" [3]. It is evident that the efficient production mode of the "IQDubbing" platform effectively enhances the dubbing efficiency of TV dramas. Popular series such as "Moonlight," "Forever and Ever," and "One and Only" were all dubbed using the "IQDubbing" platform. "As early as the iQIYI World Conference in 2021, Gong Yu pointed out the issues in the film and television industry and prescribed an 'industrialization' solution, further introducing three tools: PBIS (Production Business Intelligence System), IIPS (Intelligent Integrated Production System), and IPTS (Intelligent Production Tool Set)" [4]. iQIYI actively applies AIGC technology in the production and distribution of TV dramas, connecting the entire process from film recording to post-production, covering the full path from the production end to the user terminal. Digital tools have significantly improved the industrialization level of the film and television production industry, producing higher-quality works and providing users with a new audiovisual experience.

Figure 1: IQDubbing Dubbing Platform's "One Person Dubbing Multiple Roles" Mode

3.2 Material Expansion: A New Era of "Heaven-Man-Intelligence Integration"

In recent years, there has been a proliferation of interactive films, interactive web series, and film-game fusion movies. It is not difficult to discern the underlying operational logic, which leverages the algorithmic models of artificial intelligence technology. One category is interactive web series with a production model of "PGC (Professionally Generated Content) + OGC (Occupationally Generated Content)", enhancing the audience's immersion and experience through plot interaction. The other category is UGC (User Generated Content)-dominated interactive videos, which deconstruct, reconstruct, and reproduce film and television texts based on the aesthetic cognition of the audience. The development of intelligent technologies not only improves the efficiency and quality of film and television art production and enhances aesthetic value but also brings proactive, participatory, immersive, and interactive viewing experiences to audiences, revitalizing artistic production with endless vitality.

Christiane Paul proposes, "The new materiality integrates network digital technology, embedding data as objects and possessing the ability to process and map the relationships between humans and the environment. While revealing the way we view the world, it necessitates synchronization with the materiality encoded within digital technology itself, that is, digital synchronization" [5]. On the surface, digitization seems to threaten the materiality of art, but in reality, the evolution of digital technology has strengthened audience perception and interaction with technology, fulfilling the audience's visibility requirements for the material substrate of art and demonstrating the characteristics of artistic production in the era of artificial intelligence. When studying the impact of artificial intelligence technology on the materiality of art, embodied rhetoric is a crucial aspect. The interaction between technology and media releases the freedom of the body, with "virtual reality creating perceptual presence and digital twins enabling avatar presence" [6]. The bodily aesthetics triggered by the era of artificial intelligence mainly manifest in extending the audience's visual, auditory, tactile, and psychological imagination functions, emphasizing the construction of an interactive bridge between imagery and the audience, and creating an "immersive experience" for viewers through video technology, AI technology, and virtual reality technology.

The fully automated task chain implies a high degree of autonomy, philosophical contemplation, and social adaptability for AI. The generation of semantic agents begins to resist manual editing, eliminating human

components in the creative process. For example, unlike the intelligent evolution of AlphaGO, which focuses on the deduction of specific situations or the precision of certain numbers, or the exhaustion of possibilities for specific patterns or the presupposition of all variations in life-and-death problems, Sora poses a challenge to art and a shock to human contemplation. It starts to understand human language, capture human emotions, mimic human cognition, and grasp the semantics and emotions of texts. With the aid of superhuman algorithms and databases, it can instantly replicate mental images. The philosophical contemplation of " Heaven and Man Are United as One" condenses into the methodology of "harmony," which emphasizes harmony in form, spirit, and fate, embodying the idea of "a panel of people striving for harmony." From this, the concept of "heaven-man-intelligence as one" emerges, representing a unity of virtual-real connectivity, physical-mental fluidity, and perceptual-cognitive creativity. The new era converges on the fusion of human brains, machine brains, and their mutual soul compatibility. Humans resonate their imagined content with machine codes, and AI, through its self-generation, conjures up concrete images that sync with the fantasies in our minds. This marks a milestone shift in the subject of image creators. Unlike the original process of human conception, scripting, filming, and editing, AI now intervenes in human dream-making and even becomes the dream-maker itself.

The emergence of new technologies inevitably leads to innovative practices in media iteration. Driven by both data and algorithms, "a new pattern has formally emerged, where mass communication, network communication, social communication, and intelligent communication mechanisms collaborate and interact, yet have distinct priorities" [7]. Intelligent communication platforms can collect, identify, annotate, and generate attribute tags for "user profiles" through comprehensive, end-to-end, and round-the-clock big data technologies. Among millions or billions of videos, they utilize content reviewers, AI verifiers, and algorithm systems to precisely capture content features (such as popularity, themes, timeliness, external public sentiment, etc.), user features (such as user preferences, browsing history, login frequency, etc.), and environmental features (such as whether WiFi is used, GPS location, viewing time, etc.). This enables rapid, context-specific matching and intelligent recommendations. Multiple domestic video companies apply "user profiles" to the dissemination and distribution of film and television works. For example, Tencent Video's "Your Exclusive Channel," Youku's "Youku Understands You," and iQIYI's "You May Like" all leverage user viewing history, liked preferences, viewing duration, and other information for intelligent recommendations, enhancing the user viewing experience and pushing artistic dissemination towards customization, personalization, and intelligent iteration and upgrading.

4. "ARTIFICIAL PARADISE" IN THE ERA OF TECHNOLOGICAL TRANSFORMATION: CONCERNS OVER IDEOLOGY AND ATHICS

In modern society, the fascination with the artificial world is manifested in the public's increasing willingness to embrace new technologies. Or rather, compared to the previous widespread fear of technological development, people now seem to fear more the inability to use new technologies. In the public's view, keeping up with the times and using new technologies seems to symbolize bridging the "Digital Divide" and obtaining equal opportunities to share information. However, the emergence of technology has always been intertwined with control theory, meaning that unknown risks always lurk behind technology. Therefore, it is more accurate to say that the era of artificial intelligence has constructed a tempting "Artificial Paradise" for the public, fraught with ideological and ethical concerns.

4.1 Semantic Fallacy

When exploring the development of art in the era of artificial intelligence, it is essential to not only focus on the convenience provided by advanced technologies for artistic creation but also to pay attention to the quality of the creative content, specifically whether the involvement of AI technologies can uphold the ideological standards of artistic creation. A straightforward example is ChatGPT, a conversational AI produced by a Western capital company, whose discourse generation mechanism is based on Western language and cultural background as its underlying logic. Consequently, it naturally reveals underlying Western ideologies in conversations and may even escalate to a new form of hegemony in responding to certain questions. In terms of film and television art, "the foundation of AI digital images is no longer physical film but electronic information; the means of dissemination for AI images is no longer mass media but information network media ubiquitous in the 'Gray Zone'" [8]. Undeniably, AI technologies implicitly carry an ideology, subtly influencing the public's ideological power, emotional cognition, and identity consciousness, revealing ideological concerns in artistic creation.

AI hallucinations reflect the false, seemingly realistic, and logically coherent fallacious content generated by AI when processing commands due to its incomplete understanding of human reality, based on data redundancy,

algorithmic flaws, training biases, etc. This content originates from AI's integration and self-generation of databases and may stem from the diversity of human semantics and cultural backgrounds, manifesting as logical loopholes in the continuity of motion and misunderstandings of common physical world rules. For instance, in the sora model, the speed of falling snow is uniform, and snowflakes are not randomly shaped but follow a predictable, batch-like pattern. Sometimes, people's clothing in the scene does not match the weather settings. Additionally, although the blooming and wilting of flowers are presented in a staggered, stepped manner, their instantaneity and consistency still bear traces of AI hallucinations. The simulation of lighting and color tones is also an important lesson for AI to learn from humans, all of which reflect the proliferation of AI hallucinations. AI's learning ability stems from imitation and replication, but the contingencies and imperfections of the real world are flaws that the virtual world cannot ignore. Therefore, AI often has distortions in semantics, urging humans to focus on the boundary between the fusion of virtuality and reality.

Specifically, the application of artificial intelligence technology has spawned a new type of creator - the "algorithmic author." For instance, DeepMind's AI writing model, "Dramatron," operates similarly to ChatGPT, where users input instructions into the model, and the platform automatically generates script titles, character profiles, scene settings, and plot details. Ubisoft, a game development and publishing company, has also publicly released an AI scriptwriting assistant tool called "Ghostwriter," used to generate initial drafts of dialogue for numerous non-player characters in games, aiming to assist game writers in setting up game plots. In China, Yilan Technology has similarly launched an "AI Scriptwriter" based on ChatGPT's algorithm model, which generates professional scripts in three steps, "following the content production sequence of 'idea - plot - script.' The overall process consists of multiple products such as AI scriptwriters, AI images, AI storyboards, AI virtual humans, etc., achieving a comprehensive AIGC workflow for 'text + image + virtual human' videos" [9]. Several domestic film and television companies have successively announced plans to apply "AI Scriptwriters" to film and television projects. "Butterfly Game" is the first work where AI has officially participated in script creation, and its concept poster was also automatically generated using "AI Drawing" technology (Figure 2). The widespread involvement of AI technology has led to numerous issues arising from "algorithmic authors":

Firstly, the emergence of "algorithmic authors" makes it difficult to anchor the true identity of the creator in artistic creation. Since technological tools lack morality, emotions, thoughts, values, and other connotations, they cannot fully establish their subjective status in creation. The "absent author" obscures the ideological value and emotional orientation that artistic creation should inherently possess. Secondly, even as an auxiliary tool, AI to some extent disturbs the ideological tendency of artistic creation and may, driven by different ideologies or the capital-driven value of "prioritizing traffic", make creation choices that violate human ethics and lose rationality. Thirdly, "algorithmic authors" re-create based on existing texts, meaning that in the process of generating film scripts, they collage, reorganize, and synthesize multiple text information and code data. Some content has even reached the criteria for being judged as a "compiled work," completely ignoring the originality principle of artistic works and posing hidden risks and potential copyright disputes. In summary, without ensuring the value consciousness of "algorithmic authors," it is impossible to fully adhere to the aesthetic, educational, and ideological standards of artistic works, making it even more difficult to elicit realistic empathy from the audience.

Figure 2: Concept Poster for "Butterfly Game" Generated by AI

4.2 Incompleteness of Time and Space

At the current stage, AI-generated videos from text still cannot achieve the presentation of continuous time and space. The absence of retention and protention leads to fragmented time and space, dissected outcomes, and technically constrained action integrity. The logical chain of video narration is restrained, unable to attain a common-sense level of completeness. For example, Sora, a new generation of text-to-video large model launched by OpenAI, can generate high-quality videos ranging from 9 to 60 seconds based on user instructions. It can present a "one-shot" documentary-style viewing experience, a spliced montage effect, and even smoothly switch between scenes with special effects to replicate emotional captures and realistically portray supernatural events. It can depict images of the past, present, and even future, as well as generate animated wonders. However, the programmatic and mechanical nature of code confines AI to repeated domains, creating a vacuum in time and space where the movement of subjects is physically truncated, and the continuity of causality and spatial-temporal perception is disrupted.

Transient impressions and prospective fantasies cannot be presented in the time and space outlined by AI. This is because its underlying logical chain-based deduction does not perceive the retention and protention of consciousness. It focuses on the fluidity of objective time but ignores the coherence of internal time. Anticipation and delay are interrupted in the restoration of the here-and-now body. The time field is controlled and displaced. For instance, in a demo video of a fashionable woman walking on the street, traces of AI's affordances still linger in the depiction and replication of the image. The repetitive and homogeneous driving force of AI language makes the woman's micro-expressions stiff and vacant, pursuing precise amplitudes of a leisurely stroll rather than customized changes in stepping that occur by chance. Humanity is disenchanted in this process. Moreover, the rationale behind the "strolling" action is difficult for AI to construct. It can execute single-action commands but cannot fully cover closed-loop actions with a beginning, middle, and end. It cannot understand the complete behavior of "a woman walking on the street with expectation as she is about to meet her loved one, and her sadness from arguing with a friend also alleviates." For AI, the three fragmented actions of "the joy of meeting a loved one," "the sadness of arguing with a friend," and "walking on the street" do not have a necessary connection or a logical response of causality. The front and back ends of the emotional journey are not juxtaposed in AI's understanding of action completeness. It does not recognize that "walking on the street" requires a pre-situational context of "joy" and a post-situational feedback of "sadness." The space that unfolds over time also exhibits discontinuity between the front and back ends. For example, in a normal narrative visualization of "a woman walking on the street," the restoration of subjective consciousness should be presented, including a wide shot of the street, the woman's scanning actions, and a first-person perspective of the scanned scenery. However, this predictive shot to present action completeness is lost in AI's video production. Meanwhile, narrative techniques favored for dramatic effects, such as flashbacks, intercuts, parallel narratives, and montage that relies on the delay of subjective consciousness for coherence, are seen as disordered by AI, lacking an objective motive for deduction and thus constituting incomplete actions. Therefore, the incompleteness of time and space is a gap that spans the critical point between reality and virtuality, rooted in the divide between human contingency and programmatic necessity. The flaws of incompleteness serve as a reminder of the similarities and contradictions between humans and AI, highlighting the importance of subjective consciousness to humanity.

4.3 "User-centeredness" and "algorithmic black box"

"The task of technology ethics is to resolve the ambiguities in norms and principles that inevitably arise with scientific and technological progress" [10]. Artificial intelligence applied to art dissemination inherently involves ethical considerations. Art dissemination led by algorithms improves content distribution efficiency and achieves precise matching of information with users. On one hand, it comprehensively considers public information such as market surveys, market assessments, and user evaluations. On the other hand, it records users' search history, browsing data, viewing duration, click information, and other content through big data algorithm systems. After obtaining privacy permissions, it generates user profiles, creating a simulated environment for art dissemination. Therefore, regarding user profiles, "the formation of user profiles requires collecting a large amount of personal information from users, placing individuals in a digital panopticon where privacy becomes transparent [11]." This concern is inevitable. Superficially, it follows a "user-centered" production logic, but in reality, it is a series of structural rules composed of data codes and algorithmic information. The public is trapped in the convenience brought by data algorithms, neglecting the security protection of personal information and exposing themselves completely to the scrutiny and snooping of big data. This is because the "algorithmic black box" [12] can induce technological ethical issues. When user participation falls short of the rigid demands of data information calculation, the "technological black box" conceals the actual operations of the manipulators, fails to apply or fully

apply the "informed consent mechanism," and seriously infringes on users' data privacy, making the digital panopticon even more crisis-ridden and panic-inducing. For example, Netflix identifies users' personal digital identities based on captured "user profiles" and pushes customized movie posters to different users. It even demonstrates "discriminatory treatment" in "targeted marketing" based on consumption levels. As artificial intelligence technology gradually penetrates the consumer terminals of the public, not only do they lose their privacy, but they are also to some extent dominated in their consumption consciousness and regulated in their consumption behavior. Ultimately, artificial intelligence technology becomes a "Sword of Damocles" hanging over users' heads.

5. WHERE IS FILM AND TELEVISION ART HEADING IN THE AGE OF ARTIFICIAL INTELLIGENCE?

The dialectical relationship between technology and art is an enduring topic, with every technological advancement triggering innovations in the artistic realm to some extent. The changes brought by the age of AI are inherently dual in nature. The "evil" aspect manifests in the technology's exploitation of data control and computation, which to some extent encroaches on users' privacy. Conversely, the "good" aspect lies in the technology's ability to easily obtain user feedback, align with audience consumption choices, and cater to their emotional preferences. Therefore, studying film and television art in the AI era necessitates establishing a dialectical approach, comprehensively understanding the cognitive logic and deconstruction methods of the algorithmic age from both "enhancement" and "hindrance" perspectives. Only by deeply understanding this new phenomenon can we trace its origins and explore practical strategies and development prospects for film and television art.

Furthermore, risks and concerns cannot be solely attributed to AI technology. Instead, we need to refocus our attention on the essence of human-computer interaction. As stated by Edmund Husserl, "Phenomena are not the effects of things on human reason, but human reason itself, for there are no phenomena that do not pass through human reason [13]." It is crucial to clarify that the fundamental purpose of technological development is to enhance human well-being, emphasizing the enabling role of technology. Given that society has already entered the AI era, we should practically consider strategies, regulatory approaches, and development paths based on the current context, fostering a benign interaction between intelligent technology and artistic development. By doing so, we can meet the diverse aesthetic needs of the public with high-quality offerings.

Lastly, practical measures for improving artistic development require the active participation and joint governance of multiple stakeholders, including regulatory authorities, management platforms, art disseminators, algorithm designers, and information recipients. From the perspective of policy and regulation, relevant departments must first establish a legal framework and security policies for the use of intelligent technologies, adhering to a principle of inclusive and prudent regulation. By promoting an "algorithm transparency system," they can effectively safeguard users' information security and privacy rights. For instance, "administrative powers should be wisely utilized to regulate algorithms, with particular emphasis on overseeing public information priority criteria, the elements and tags used in user profiling, and, where commercial secrets are not involved, making algorithm parameters appropriately public to the public [14]." Regarding the copyright issues of "algorithmic authors," targeted legal policies need to be introduced to clearly delineate creator responsibilities and artistic creation requirements, avoiding disruptions to the enthusiasm of the artistic creation market. Overall, regulation and governance should be strengthened in the direction of "strictly preventing technological uncontrollability, protecting user privacy, and ensuring that all AI products are traceable" [15]. From the perspective of regulating behavior and fostering awareness, platforms themselves must first strengthen their principal responsibility and legal consciousness, ensuring the degree of control and dominant position of manual review to minimize the risk of algorithmic infringement due to unclear rights and responsibilities. They should practically implement guiding measures such as "timely identifying potential risks, discussing industry rules, and forming industry self-discipline" [16]. From the dimensions of artistic creation and copyright protection, algorithm operators and artistic producers need to enhance their own qualities to ensure the positive value judgments of AI, avoiding the creation of distorted, biased, discriminatory, or unethical artistic works. They also need to fully protect the intellectual rights of original creators and consciously adhere to the responsibility requirements of being "algorithm gatekeepers," following the approach of "AI must possess 'intelligence' and ensure its 'beneficial use'" [17].

6. CONCLUSION

Focusing on the new wave of intelligent media, the industrial production of visual storytelling has been thrust into the spotlight. AI empowers imagery, ushering in a new era of performance and creation at the Metaverse-level. However, after the euphoria fades, the negotiation of subjective consciousness stimulates creators to explore the elimination and fusion of boundaries. The catalytic iteration of new productive forces has spawned the hypothetical proposition of AI illusions, and the emergence of narrative symptoms presents a new modality for reflecting on visual storytelling. In this new era dominated by AI, how should talent in media education be cultivated? Perhaps comprehensive, integrated, intelligent, and creative individuals can counteract the polarization of AI. Possessing cross-disciplinary critical skills, integrating human intelligence with intelligent humanization, having excellent digital media literacy and social attention, and being able to skillfully use technological tools while being guided by subjective consciousness are the criteria for structural talent in the new ecosystem of visual storytelling in the new wave of intelligent media. We should domesticate AI, respect AI, and also revere AI. The boundaries between reality and virtuality are blurring, but the definition of AI and humans should be examined with great caution. In the future, perhaps the era of AGI (Artificial General Intelligence) will arrive. How to uphold human responsibility is a proposition that media professionals need to delve into. With collaborative efforts from multiple parties, we should maximize the avoidance of risks posed by AI technology to values, ethics, and the artistic ecosystem, ensuring that artistic development in the AI era truly follows a positive, healthy, orderly, and secure path. We should uphold the socialist core values as the guiding principle for the artistic system, produce, create, and disseminate artistic works from the high points of cultural inheritance and serving the people, and establish "technology empowerment + humanities empowerment" as the new foundation for artistic development in the AI era.

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