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Research Article

Application of Communication Technology and Neural Network Technology in Film and Television Creativity and Post-Production

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ABSTRACT

The intersection of communication technology and neural network advancements in the realm of film and television creativity and post-production assumes a pivotal role, heralding a new era of content innovation. These technologies not only fuel the inventive spirit in film and television narratives, but they also elevate production efficiency and artistic quality to unprecedented heights. Enabled by high-speed data transmission and cloud storage solutions, global teams now collaborate in real-time, seamlessly sharing voluminous media files, thereby expediting the entire creative journey from script to screen. This not only mitigates the reliance on traditional manual labor but also enhances the realism and sophistication of visual effects. Illustratively, facial recognition and expression capture technologies accurately capture actors' expressions, transplanting them onto digital characters, thereby yielding realistic animations. Moreover, neural networks analyze vast audiences' data, providing producers with a nuanced understanding of audience preferences, guiding content creation, and aligning film and television works with market demands. In this manner, the integration of communication and neural network technologies ushers in a new dawn for film and television, one that is rich in innovation, efficiency, and artistic excellence.

Keywords: Communication Technology, Neural Network Technology, Film and Television Post-Production, Audience Data Analysis.

INTRODUCTION

In the intricate dance of light and shadow within the digital epoch, the convergence of communication technology and neural networks has ushered in a novel vista for film and television creativity and post-production. This exploration marks not just a challenge to traditional film aesthetics but a profound inquiry into the narrative horizons of the future [1]. The present paper endeavors to elucidate how these two pioneering technologies, when intertwined, mold the contours of film and television productions, while enhancing visual expression, enriching storytelling, and optimizing post-production workflows [2]. Producers, directors, special effects artists, and other crew members can now collaborate seamlessly across geographical boundaries, honing every nuance of the work together. This collaborative modus operandi significantly enhances production efficiency and flexibility [3].

The application of neural network technology in post-production is like a clever artist, giving a film to life. Through deep learning algorithms, computers can imitate human visual recognition and image processing capabilities, so as to achieve an unprecedented height in the creation of visual effects. Whether it is the complex scene rendering, the exquisite capture of character expressions, or the natural interaction of virtual characters, the neural network technology can provide strong support [4]. The integration of this technology makes film and television work more realistic in visual presentation and emotional communication richer, thus enhancing the audience's sense of immersion and resonance [5].

The fusion of communication technology and neural networks is profoundly reshaping the future of film and television creativity and post-production [6]. With technological advancements, a new film and television (TV) production landscape emerges, blurring creativity and technology. Artists' imagination and machines'

computational prowess converge, birthing groundbreaking works that herald both technological and cultural revolutions. This evolution will propel film and television art towards a future that is more diverse, personalized, and boundary-pushing.

LITERATURE REVIEW

Research on Communication Technology and Neural Network Technology

Communication Technology

Communication technology encompasses both traditional and modern tools for rapid information exchange, fueling globalization, informatization, and societal progress [7]. In film and TV, this technology revolutionizes content creation, distribution, and consumption. Digital advancements enable high definition (HD) production, online streaming, and personalized viewing. Social media and mobile platforms enhance marketing, audience engagement, and market impact [8]. The evolution of communication technology is not merely a technological innovation; it has become a pivotal driver in propelling the film and television industry towards greater diversity and globalization.

Table 1. Overview of the Communication Technology Characteristics

Communication Technology	Work Frequency Band	Data Transfer Rate (Mbps)	Coverage Range (Km)
Bluetooth (Bluetooth)	2.4 GHz	1-3	<100 (visual distance)
Wi-Fi (IEEE 802.11n)	2.4 GHz / 5 GHz	600 (Theoretical value)	<100 (visual distance)
5 GNR (New Wireless)	Sub-6 GHz / mm Wave	10,000 (theoretical value)	Hundreds of meters to several kilometers (by the base station)
LoRaWAN	Sub-GHz (e. g., 868 MHz, 915 MHz)	0.3-50 (depending on the configuration)	Several kilometers to tens of kilometers
Satellite communication	The Ku-band, the Ka-band, etc.	Hundreds of Mbps to a number of Gbps	global mode coverage
Fiber communication	Visible light to infrared light	Dozens of Tbps (theoretical value)	Hundreds to thousands of kilometers

As can be seen from Table 1, different communication technologies have their own advantages and applicable scenarios. Bluetooth and Wi-Fi excel in short-range wireless connectivity for smart homes and Internet of Things (IoT), while 4G long term evolution (LTE) and 5G new radio (NR) lead mobile networks with speed and coverage [9]. Low-power technologies like ZigBee and LoRaWAN facilitate IoT device oversight and data dissemination, enabling seamless connectivity. In film and TV, digital media, interaction, computer, communication, and virtual reality technologies converge. This fusion empowers filmmakers to craft hyper-realistic scenes, narratives, and flexible production/post-production. Digital media interaction technology enhances audience engagement, immersion, and interaction with characters, ushering in a new era of filmmaking. This immersive experience deepens audience involvement and a sense of participation.

Neural Network Technique

Neural network technology mimics the brain's neurons, structured with interconnected layers of artificial neurons: input, hidden, and output. Nodes are interconnected via weighted connections and thresholds [10]. When the output of a given node surpasses a predefined threshold, it becomes activated, propagating data to the subsequent layer of the network [11]. Table 2 offers a comprehensive overview of the diverse types and defining characteristics of neural networks. These networks rely heavily on training data to gradually refine their predictive abilities and enhance accuracy. Once their performance is honed to a desired level, neural networks emerge as formidable tools in the domains of computer science and artificial intelligence, enabling a wide range of applications that harness the power of machine learning. The technology imitates the complex algorithm model of human brain neurons, allowing computers to demonstrate unprecedented capabilities in image recognition, speech processing, and natural language understanding. In the early stage of film and television production, the

neural network helps in role modeling and scene rendering, greatly improving the efficiency and fidelity of special effects production, so that the fantasy world can be more vividly presented in front of the audience [12]. In the middle editing stage, it can also assist in the completion of automatic editing, color correction and other tasks, reducing the labor burden, and improving the quality of the work. In the subsequent phase of content recommendation, neural networks emerge as powerful predictors of audience preferences. By meticulously analyzing vast troves of data, these networks refine the strategy for personalized recommendations, thereby elevating the overall user experience. Notably, neural network technology not only fuels innovation in film and television content but also propels the intelligent transformation of the industry's value chain, infusing the future development of the film and television industry with renewed vitality and momentum.

Table 2. An Overview of the Neural Network Types and Characteristics

Neural Network Type	Main Features
Convolutional neural networks (CNN)	Specialized in processing image data and extracting features through convolution and pooling operations
Recurrent neural network (RNN)	Suitable for processing sequence data, such as text, speech, etc.
Generative adversarial networks (GAN)	Composites of generator and discriminator used to generate realistic data samples
Graph neural networks (GNN)	Specifically for processing graph structure data, such as social networks, molecular structures, etc.
Long short-term memory (LSTM)	Special RNN, with a gating mechanism, can capture long-term dependence
Transformer	Based on the self-attention mechanism, it is used to process sequence data, especially in natural language processing
Autoencoder	It is used to learn the data compression representation and is often used for data dimension reduction and feature learning
Deep reinforcement learning network	Combining deep neural network and reinforcement learning, it is suitable for game intelligence and other fields

In the creative stage of film and television, the neural network can assist the screenwriter and director to predict the emotional response of the audience through its strong learning ability and pattern recognition function, so as to optimize the plot direction and character shaping. For example, by analyzing historical movie data, neural networks can predict the plot settings or character development trends of a certain genre, providing inspiration and decision support for the creators [13]. In addition, it can also simulate different styles of narrative techniques, providing infinite possibilities for experimental film creation. Entering the post-production link, the role of the neural network is even more important. In terms of visual effects, the deep learning algorithm can be used to achieve high-precision image recognition and segmentation, making the special effects production more efficient and accurate. For example, super-resolution technology generated by neural networks can allow low-resolution raw materials to be converted into high-definition images, greatly improving the quality of visual effects. At the same time, the neural network can also be used for dynamic capture and the creation of virtual characters, making the expressions and movements of digital characters more delicate and real. In the sound effect production, the neural network also shows its unique charm. It can analyze and synthesize complex audio signals, create realistic environmental sounds and musical effects, and create an immersive auditory experience for the audience. In addition, neural networks can also be used for speech synthesis and speech conversion, providing technical support for non-human characters in movies or speech performance in special situations.

Film and Television Creativity and Post-production

Film and television creativity and post-production is a comprehensive work of art and technology. It begins with the conception of a story, which is transformed into the script through the clever brushwork of the screenwriter, and then into visual images through the director's perspective and creativity. In this process, the creative team uses a rich imagination to design unique scenes, characters and plots, ensuring that the story is both attractive and conveys profound themes. Entering the post-production stage, technical experts use advanced software and technology to make a series of fine processing such as editing, color mixing, special effects addition and sound preparation [14]. The editor, like the sculptor, carefully carved each frame to ensure the narrative is smooth and tight rhythm; the painter gives the film emotional color and creates the appropriate atmosphere; the special effects team is the magician, creating super realistic visual effects through digital magic, and the sound designer is the music conductor, coordinating the sound elements to enhance the audio-visual experience.

The current research direction of film and television creativity and post-production focuses on the integration of cutting-edge technology and artistic innovation, aiming to enhance the audience's immersive experience and interactive. Researchers explore artificial intelligence (AI) in automated editing, effects, ML-driven color correction, and the impact of virtual reality (VR) and augmented reality (AR) on storytelling. Big data analysis reveals audience preferences, guiding content creation and positioning. Together, these research directions push film and television production towards a more intelligent, personalized and interactive future. Film & TV creativity and post-production are advancing in tech, creativity, and sustainability. AI, VR, and AR enhance intelligence, personalization, and visual/interactive experiences. Cloud computing and distributed rendering boost efficiency, remote collaboration, and flexibility [15]. Sustainable development has also become the focus of the industry. The application of digital and virtual production technologies will reduce the demand for field photography, reduce the carbon footprint, and promote the industry to green transformation.

Research Method of Communication Technology and Neural Network Technology

The research methods of communication technology usually involve signal processing, network design, protocol development and so on. In signal processing, researchers will explore how to effectively transmit and decode information, including modulation and demodulation techniques, encoding and decoding techniques, and signal detection and estimation [16]. Network design focuses on how to build an efficient communication network, including topological structure design, routing algorithm, network traffic management, etc. Protocol development involves setting communication standards and specifications to ensure correct interaction between different devices and systems.

The research methods of neural network technology mainly focus on model design, training algorithms, and application scenario exploration [17]. Model design involves selecting appropriate network structures, such as feed forward neural networks, convolutional neural networks, recurrent neural networks, etc., as well as determining the number of layers of the network and the number of neurons in each layer. The training algorithm includes back propagation, gradient descent, regularization, etc. It is used to adjust the network weight to minimize the loss function [18]. Application scenario exploration is to apply neural network technology to practical problems, such as image recognition, speech recognition, natural language processing, etc.

With the development of technology, the fusion of communication technology and neural network technology has become more and more common. This fusion research method usually involves applying the neural network technology to each link of the communication system to improve the performance and efficiency of the system. For example, neural network technology can be used to improve the modulation and demodulation process of the signal and improve the anti-interference ability and transmission quality of communication. In addition, the neural network technology can also be used to predict and diagnose network faults, to help operators find and deal with network problems in time, and to maintain the stable operation of the network.

In practical applications, this converged research method can help solve many challenges in communication fields, such as signal interference in wireless communication, network congestion, security problems, etc. [19]. By combining the powerful learning and adaptability of neural network technology, a more intelligent and efficient communication system can be developed to meet the needs of modern society for high-speed, reliable and safe communication.

Table 3 shows the comparison between communication technology and neural network technology. Communication technology and neural network technology are two different research fields, each with unique research methods and application scenarios. Communication technology mainly focuses on the transmission of information and the processing of signals, while neural network technology focuses on imitating the working mechanism of the human brain and learning and processing data through algorithms. Here is a comparison of the two.

Table 3. Comparison of Communication Technology and Neural Network Technology

Contrast Dimensions	Communication Technology	Neural Network Technique
Purpose of research	Transmission of information and signal processing	Data learning and pattern recognition
Research technique	Signal modeling, encoding, modulation, transmission, reception, and decoding	Neural network model construction, training, optimization, and application
Application area	Wireless communication, optical fiber communication, satellite communications, etc.	Image recognition, speech recognition, natural language processing, etc.
Key technology	Channel encoding, modulation and demodulation, signal processing algorithms, etc.	Deep learning algorithms, back-propagation, convolutional neural networks, etc.
Research difficulties	Accurate modeling of channel characteristics, anti-interference capability, signal quality assurance, etc.	Model generalization ability, computational resource consumption, data annotation, etc.
Trend in development	The development of high-speed and low-latency communication technologies, such as 5G and 6G	The exploration of advanced algorithms such as reinforcement learning and transfer learning

Communication Technology and Neural Network Technology in the Film and Television Creativity and Post-production System Construction

Neural networks, especially deep learning, are transforming film & TV production. In visual special effects (VFX), they create realistic effects, boost efficiency, and auto-fix errors. For characters, they generate realistic models & movements, reducing drawing time [20]. They also aid in scripting, photography, and lighting. The combo of communication & neural networks enables remote collaboration, improving efficiency. Cloud storage & distributed computing enable large-scale data processing, powering neural networks.

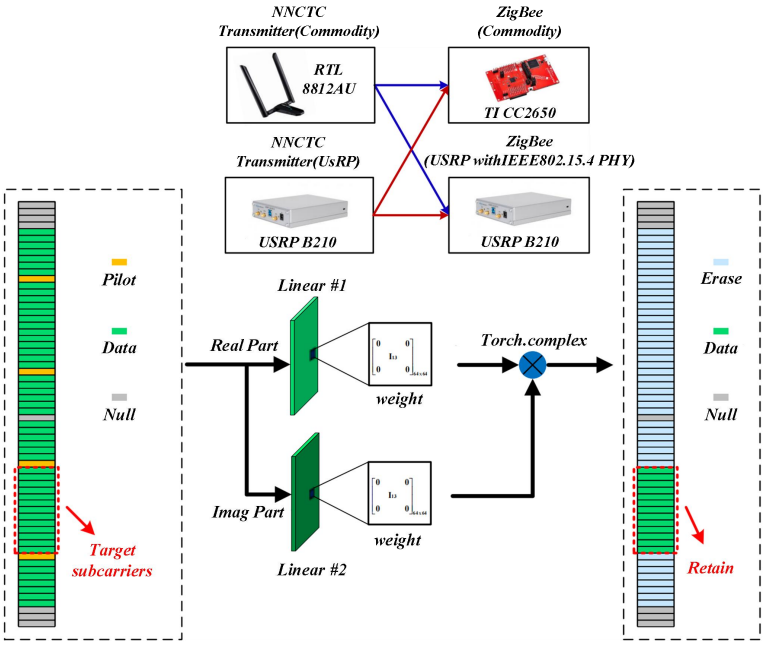

Figure 1. Construction Process of Communication Components in the Production System

Figure 1 shows the construction process of communication components in the production system. Artificial intelligence technology, including neural network technology, is continuously deepening its application in film and television production. By developing a trusted facial system, and establishing a neural network based on real muscle motion and connection, machine learning of dynamic motion clips is conducted to generate more realistic facial effects. AI adjusts scene lighting for visual impact. The integration of communication and neural network tech in film & TV creativity and post-production is evolving rapidly, revolutionizing production. As technology advances, film & TV production will increasingly rely on these technologies for efficient, high-quality creations.

Application of Communication Technology in Film and Television Creativity and Post-production

Communication technology in the film and television creative and post-production applications mainly

reflected in improving the efficiency of data transmission, remote collaboration, supporting the cloud rendering and editing, and promoting real-time video collaboration and communication, etc., these applications help improve production efficiency, reduce costs, enhance creative flexibility, and promote the industry to the direction of digital, networked, intelligent [21]. Table 4 is an overview of the application of communication and neural network technology in film and television creativity and post-production. The popularization of communication technology, especially 5G network, is profoundly changing the creation and production process of film and television works.

Table 4. Overview of the Application of Communication and Neural Network Technology in Film and Television Creativity and Post-production

Technical Field	Film and Television Creative Stage	Post-production Phase
Communication technology	Remote collaboration and communication	High-speed data transmission
	Resource sharing and acquisition	Distributed file storage
	Real-time feedback and guidance	Real-time video surveillance
Neural network technique	Creative content generation	Automate editing and scene recognition
	Character and scene design	Virtual character generation and motion capture
	Audience preferences	Intelligent prediction and personalized recommendation

Figure 2 shows the process analysis of communication technology in film and television creativity and post-production. The characteristics of high speed and low delay make the high-resolution image materials to be transmitted in real time, ensuring the high quality and fluency of the picture both at the shooting site and in post-production. The application of this technology allows directors and photographers to be more flexible in multi-plane shooting, capture more details, and enrich the visual experience of the audience.

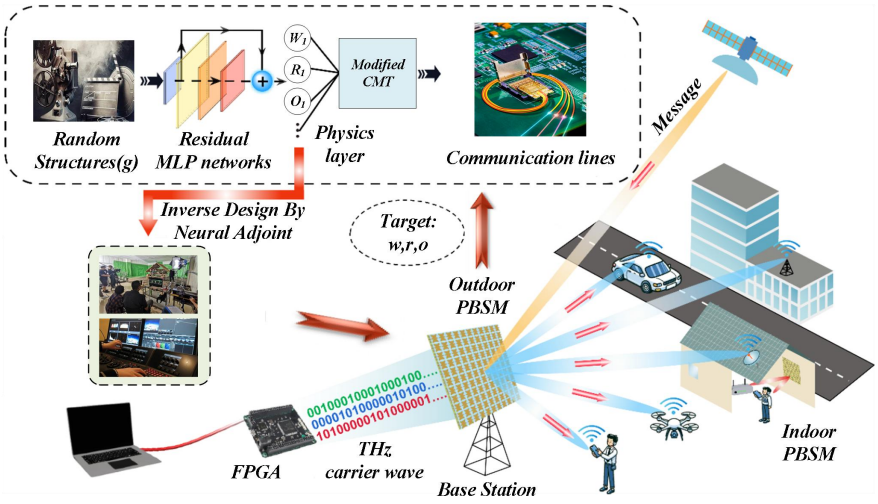

Figure 2. Process Analysis of Communication Technology in Film and Television Creativity and Post-production

Cloud rendering and editing platforms enable remote collaboration, boosting post-production efficiency and quality. VR and AR tech add immersion to film & TV, letting audiences experience stories in new ways, enhancing artistic expression and market appeal.

Application of Neural Network Technology in Film and Television Creativity and Post-Production

Neural network technology plays a key role in the quality improvement of film and television works. It realizes the fine adjustment and optimization of the image through deep learning and advanced image processing algorithms [22]. In post-production, the neural network can automatically identify and correct the colors, enhance the contrast, and even repair the damage in the old movies to make the picture more vivid and vivid [23]. In addition, the application of neural networks in special effects production, such as simulating the physical effects of the real world, creating realistic common gateway interface (CGI) characters and environments, and greatly

enriching the visual effects [24]. In the field of sound, neural networks can also carry out high-quality audio processing and speech synthesis to improve the overall auditory experience. The integration and application of these technologies not only improve the production efficiency but more importantly, give the film and television works higher artistic expression and immersion, thus significantly improving the overall quality of the works [25].

Combine the Communication Technology and the Neural Network Technology to Build the System

The system built by combining it with communication technology and neural network technology is like a bridge, connecting data and intelligence, and opening the door of diversified functions. In such a system, real-time data transmission and efficient computing power complement each other, making remote collaboration within reach [26]. For example, in the field of film and television production, artists around the world can through high-speed communication network real-time sharing and editing of high-definition video material, and neural network algorithm in the cloud for the material intelligence analysis and processing, automatic complex tasks, such as scene segmentation, object tracking and color correction, greatly improve the efficiency and quality of post-production [27].

Figure 3 for the communication technology and neural network technology system results analysis, the system can realize intelligent monitoring and analysis, through the deployment of different locations of the camera to capture real-time images, neural network technology can real-time identification and analysis of image information, such as crowd density, traffic flow or abnormal events, for the city management, public security and business decision provides a strong support [28]. At the same time, the telemedicine system combined with communication technology enables doctors to cross geographical boundaries and communicate with patients through high-definition video and audio, while the neural network can assist in the analysis of medical images in the background and provide diagnostic suggestions, which undoubtedly expands the boundary of medical services and improves the allocation efficiency of medical resources [29]. The realization of these functions not only shows the great potential of communication technology and neural network technology, but also brings innovative changes to all walks of life.

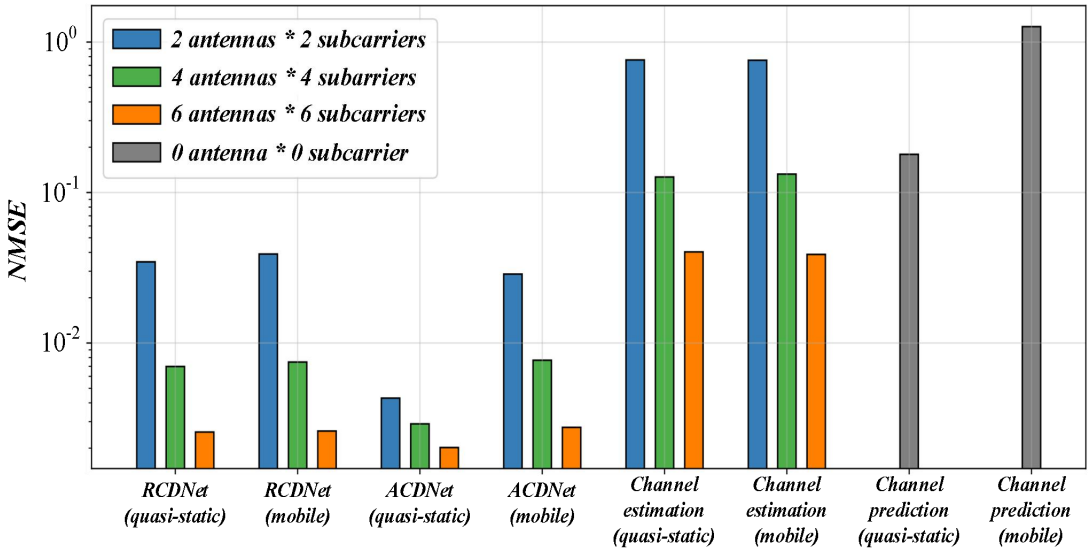

Figure 3. Results of System Analysis of Communication Technology and Neural Network Technology

METHODOLOGY

Construction of the Scheme and Index System

When constructing the application scheme index of communication technology and neural network technology in film and television creativity and post-production, the following key points can be considered:

First, assess if the chosen tech suits film & TV production. For GANs in special effects, consider if they deliver high-quality, realistic visuals, and boost efficiency & creativity.

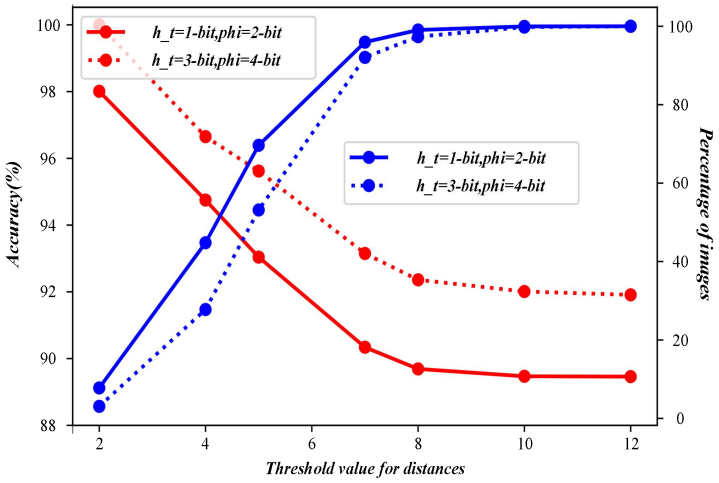

Figure 4. Analysis of the Index System Construction Results

To train neural network models, large amounts of high-quality data need to be collected. In film and television production, data acquisition may face copyright, privacy and other restrictions. Therefore, strategies need to be developed to legally obtain the required data and ensure the diversity and representativeness of the data. Figure 4 shows the analysis of the construction results of the index system. During the training process, the neural network model may encounter problems such as gradient disappearance and mode collapse, which will affect the stability and controllability of the final generation effect [28]. Therefore, the model architecture needs to be studied and improved to improve its stability and controllability. Training neural network models usually require a large number of computational resources and GPU computing power support. This can lead to high cost and scalability challenges. Therefore, we need to evaluate the computational resource requirements of the selected technologies and find more cost-effective solutions.

An objective and comprehensive quality assessment system is required to be established to assess the visual quality and fidelity of the generated content. This includes the analysis of color, light, and texture, as well as the speed of generation and resource consumption. With the progress of technology, new application scenarios and creative ideas continue to emerge. Therefore, the program indicators should include predictions of future technology trends to update and upgrade the system in a timely manner to remain competitive. By analyzing successful cases, we can understand the performance and potential problems of the selected technology in practical application. This helps to optimize the indicators and improve the quality and efficiency of film and television production.

RESULTS AND DISCUSSION

Scheme Design Implementation

Combination of film and television production process and deep learning technology. The film and television production process usually includes many steps, such as script writing, crew formation, shooting and production, among which the design and drawing of theater and character action is a crucial link. In the process of stage and character action design of traditional movies and TV dramas, the creativity and artistic skills of professionals are needed, and a lot of time is needed. Deep learning technology has achieved remarkable success in image recognition, speech processing, natural language processing and other fields, and has played an important role in film and television production. For example, some studies use GAN to generate different styles of movies and TV series scenes, and others achieve the goal of automatically generating character actions by combining character movements with human pose estimation.

Table 5. Design and Implementation of Communication Technology Application Scheme

Application Area	Technology Type	Data
Remote collaboration	Video conferencing system	Frequency of use: 3 times per week
resource sharing	Cloud storage services	Film and television file upload/download volume: 1TB per month
Real-time supervision	Remote video stream transmission	Real-time monitoring time: 4 hours a day

Table 5 is the overview of the design and implementation of the communication technology application scheme. First, appropriate data sets are constructed, and existing movies and TV series scene photos and action videos of characters are collected, and manually screened and annotated according to the requirements. For the collected data, the preprocessing is needed to extract the useful information and to eliminate the noise.

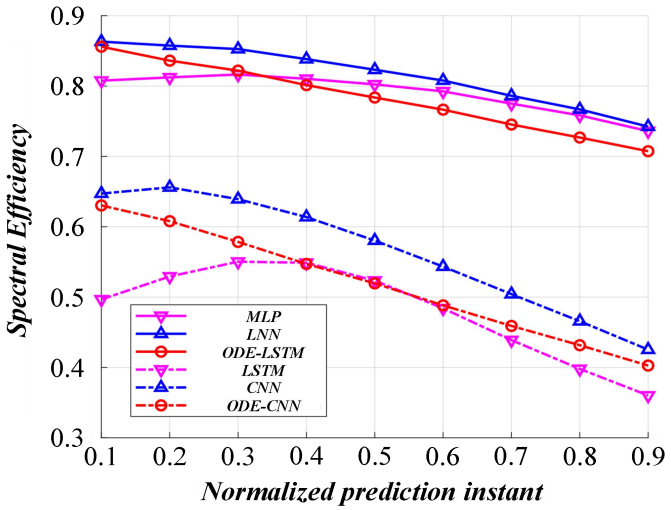

Figure 5. Scheme Design Implement Spectral Efficiency Analysis

The preprocessing steps may include clipping, rotation, and zooming of the image, as well as frame extraction and keyframe selection in the video. For the construction of the stage and character action generation model, the accurate annotation of data is crucial. Figure 5 shows the scheme design and the spectral efficiency analysis, by adding corresponding labels to each sample in the data set, such as scene type, character identity, etc.

Table 6. Functional Data Results of Communication Technology Application

Application Function	Technology Type	Data
Automatic editing	Deep learning model	Citing efficiency improvement: 50%
Virtual character	3D modeling + GAN	Number of virtual characters: 20
Smart subtitles	speech recognition +Natural Language Processing (NLP)	Caption generation accuracy: 95%

Table 6 shows the functional data results of the communication technology application. Based on the selected neural network model, the specific network structure and training strategy can be designed and generated for the film and TV drama scenes. The GAN can be used to improve the generation effect through continuous iteration. For the character action generation model, we can use the action tracking technology to analyze, and design the corresponding role action generation model. In the model training and evaluation stage, the designed model should be trained and the training results should be evaluated. Evaluation metrics can include the authenticity and diversity of the generated scene, and the nature and expressiveness of the character's actions.

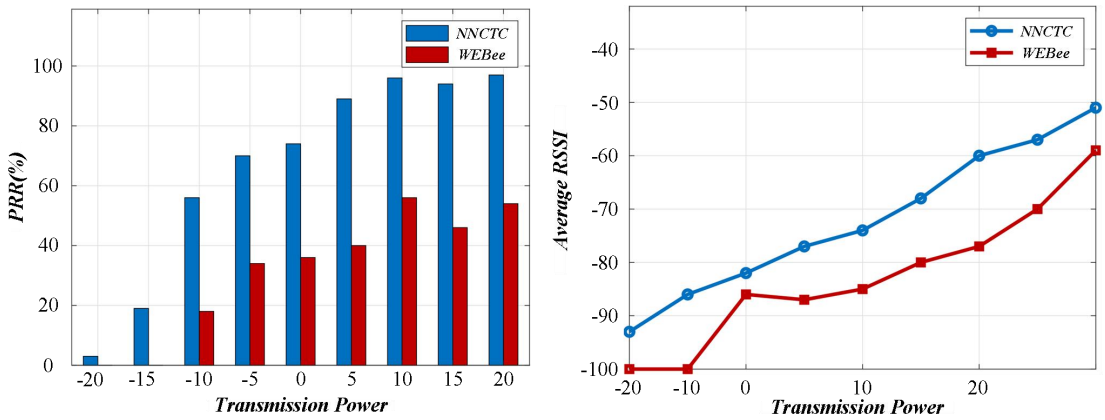

Figure 6. Analysis of Neural Network Artificial Intelligence Technology Results

Figure 6 shows the analysis of the results of neural network artificial intelligence technology. Artificial intelligence technology is used to realize virtual shooting and preview, so that the director and producer can preview the film effect before shooting, and improve the production efficiency and effect satisfaction. By combining AI technology with virtual reality technology, virtual shooting and previews can be achieved. In virtual shooting, the AI can automatically generate virtual scenes and character models according to the requirements of the script and the director. The producer can view the shooting effect in the preview and adjust the shooting plan in time to improve the production efficiency and effect satisfaction. At the same time, virtual preview can also reduce the cost and risk of shooting and avoid unnecessary waste. Artificial intelligence technology can quickly generate realistic scenes, improve rendering efficiency, and save time and cost for film-making. Using machine learning and computer vision technology, AI can automatically generate appropriate scene models based on the creative needs of directors and art directors. At the same time, AI can also optimize rendering algorithms, improve rendering efficiency, and make movie production more efficient. In addition, AI technology can automatically generate a variety of special effects, such as flame, smoke, water flow, etc., to improve the authenticity and shock of the special effects.

Model Evaluation

In film and television creativity and post-production, model evaluation is a key link, which involves the quantitative analysis of various elements in film and television works to ensure the quality of the final product and the acceptance of the audience. With the development of technology, especially the application of deep learning and neural network technology, the role of model evaluation in film and television production has become more and more important.

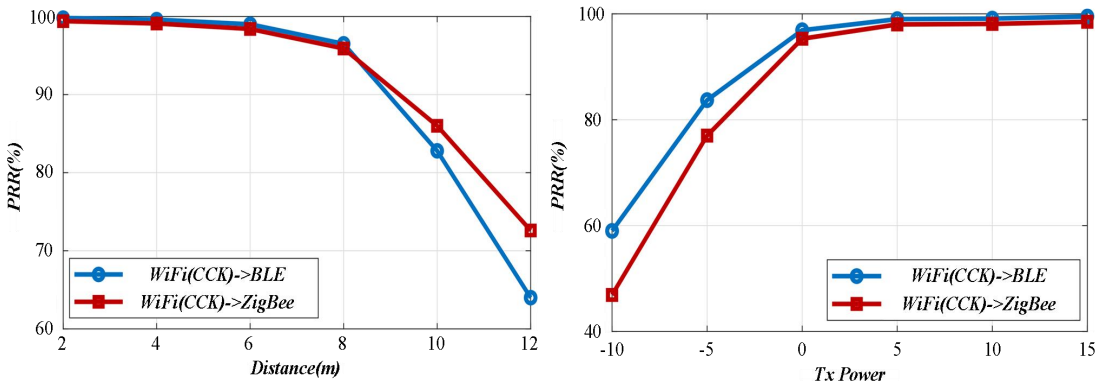

Figure 7. Results of the Fusion Technology Model Evaluation

Figure 7 shows the results of the fusion technology model evaluation. The application of deep learning and neural network technology in the model evaluation is mainly reflected in the following aspects:

Film and TV drama scene generation model. Using neural network models, such as GAN, can automatically generate film and TV drama scenes, reduce the workload of manual design, and improve efficiency and creative freedom.

Role-based action generation model. Through the combination of action tracking technology and neural network model, the character movements can be automatically generated, making the character performance more natural and vivid.

Dataset construction. To train deep learning models, datasets containing large amounts of data need to be constructed. These datasets often need to be manually screened and annotated so that the model can learn the correct features.

Model training and evaluation. Training a deep learning model requires a large number of computational resources, and the stability and controllability of the model are also important indicators for evaluation. By evaluating the training results of the model, we can ensure that the generation effect of the model meets the expected standard.

CONCLUSION

In the field of film and television creativity and post-production, the integration and application of communication technology and neural network technology are opening a new chapter of creation. Communications technology provides a high-speed data transmission and real-time collaboration platform, allowing global teams to work synchronously in different locations, greatly improving production efficiency and flexibility. Neural network technology, especially deep learning algorithms, has been widely used in image recognition, style migration and special effects generation. For example, through neural networks, people can automatically identify facial features and fine-adjust them, or turn realistic scenes into dreamlike visual art.

With the popularity of 5G networks and the continuous progress of algorithms, we can expect more efficient and innovative production processes. The fusion of virtual reality and augmented reality technologies heralds a new era of profound interactivity and immersive experiences in film and television content. Concurrently, the evolution of artificial intelligence promises a leap towards more intelligent and bespoke content creation, tailored to the diverse aesthetic preferences of audiences. In essence, the symbiotic alliance of communication technology and neural networks propels the film and television industry forward towards a future that is increasingly digitalized and intelligent.

ETHICAL DECLARATION

Conflict of interest: No declaration required. **Financing:** No reporting required. **Peer review:** Double anonymous peer review.

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