| RESEARCH ARTICLE

Research on the Application Strategy of Artificial Intelligence Empowering Media Convergence

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| ABSTRACT

Today, with the rapid development of artificial intelligence, media convergence is facing new opportunities and challenges in the production of AIGC media products. The purpose of this study is to explore the characteristics of AIGC media products, the application of artificial intelligence in converged media and the innovative path of intelligent converged media operation under the background of artificial intelligence and converged communication. By combing the relevant literature on artificial intelligence production, converged communication, media operation, and management, this paper constructs a theoretical framework, explores the production advantages and disadvantages of AIGC, analyzes the cases of converged media using artificial intelligence to produce media products, and combines the theory of converged communication, media ecology theory, and media ethics norms. It provides AIGC application strategies such as avoiding AIGC behavioral ethical risks, improving AIGC media product quality, and innovating intelligent convergence media operation structure for convergence media to promote the sustainable development of convergence media artificial intelligence application ecology.

| KEYWORDS

Artificial intelligence; media convergence; media products; communication ethics; application strategy.

| ARTICLE INFORMATION

1. Introduction

With the continuous integration and intelligence of the media industry, the application of artificial intelligence in the media industry has been applied to voice text recognition, graphical processing, video production, big data push and other links. Artificial intelligence technology is changing the way of information production and dissemination. Based on the original information production and dissemination methods, it has accelerated the speed of information collection, production, and promotion and further broadened the channels of information dissemination, bringing potential and opportunities to produce media content. With the continuous progress of artificial intelligence technology and the continuous expansion of application scenarios, artificial intelligence will play an increasingly important role in the production of media products. By exploring the application potential of artificial intelligence technology in the field of media convergence, effective application strategies are formulated to enhance the competitiveness and innovation ability of media convergence. It helps to promote the intelligent transformation of the media industry, enhance the attraction and influence of media product content, and promote the sustainable development of the media industry.

This study focuses on the ways and effects of artificial intelligence-enabled converged media content production, the application of artificial intelligence specific technologies, the impact of artificial intelligence on converged media business models and user experience, and the ethical and legal issues of artificial intelligence in the production of media products. By sorting out and analyzing the existing literature, we understand the theoretical basis of the application of artificial intelligence in the media industry. Through case studies, technical evaluation, user surveys and other methods, we deeply analyze the specific application effects of

artificial intelligence technology and users ' acceptance of artificial intelligence-enabled converged media content and analyze communication ethics and laws. It reveals the ethical problems and legal challenges that artificial intelligence may cause in the application of media convergence and puts forward corresponding management and normative suggestions.

2. Features of Artificial Intelligence Generating Media Products

AIGC technology shows significant advantages in the converged media environment, including efficient data mining and analysis capabilities, which can accurately capture social hot spots and deepen the understanding of public opinion. Realize personalized content recommendation and enhance user experience through deep user portraits and real-time monitoring and forecasting development trends, providing forward-looking guidance for content planning. However, the application of technology is accompanied by challenges, such as copyright ownership disputes, especially the ambiguity in the legality of data sources and the determination of creative rights; the risk of inferior news production stems from the problem of authenticity identification and algorithmic thinking bias in data processing. As well as technical application barriers and a shortage of professionals, the popularization and in-depth development of AIGC technology are limited. In the face of the coexistence of opportunities and challenges, the media industry needs to find a balance between technological innovation and ethical norms to ensure the healthy and sustainable development of AIGC technology and provide users with higher quality media products and services.

2.1 The Advantages of Artificial Intelligence Generating Media Products
2.1.1 Based on Data Mining and Analysis

By using big data analysis technology, the AIGC (Artificial Intelligence Generated Content) system can instantly gather and process massive media data, covering text, images, videos, and other media forms. With efficient and in-depth data mining and analysis capabilities, the system extracts valuable insights from massive amounts of information (Xiong, 2024). Specifically, AIGC can integrate diversified data sources such as news articles, rich image libraries, video materials, posts, and comments on social media and combine the power of natural language processing (NLP), image recognition, and video analysis technology to accurately identify social hot topics, core events, and key figures.

AIGC can also deeply analyze the public's emotional tendency and attitude towards news events and capture the reporting bias and unique perspective between different media platforms. This comprehensive and detailed analysis provides a window for media institutions to deeply understand public opinion and demand and provides strong support for government departments to optimize policy formulation and news reporting strategies. In the end, AIGC not only promoted the leap-forward improvement of the quality of news reports but also ensured the accuracy and timeliness of information release and contributed to the construction of a more transparent and efficient information dissemination environment.

2.1.2 Achieve Personalized Content Recommendation

AIGC can accurately capture users ' interests, preferences, and behavior patterns through in-depth analysis of huge, converged media data to build a detailed and accurate user portrait. This process not only makes the user's needs and preferences leap on paper but also lays a solid foundation for more personalized content recommendation. AIGC continues to pay attention to user behavior and interactive feedback. According to the user's immediate interest changes and feedback, it flexibly adjusts the recommended content to ensure that each push can coincide with the user's mind, which greatly improves the user experience and satisfaction.

At the same time, AIGC also integrates the comprehensive analysis of multi-dimensional data such as user interest, similar content exploration, and hot topic tracking and cleverly integrates and matches different types of content to present users with a tailor-made content feast. This multi-dimensional recommendation strategy not only meets the increasingly diverse information needs of users but also enhances the accuracy of recommendation while strengthening the personalized features of recommendation, so that every user can feel exclusive and unprecedented content enjoyment.

2.1.3 Real-time Monitoring and Forecasting Development

AIGC 's powerful real-time monitoring capabilities closely track users ' every click, browse, comment, and share behavior on the converged media platform, instantly gain insight into users ' current interests and needs, and flexibly adjust content recommendation strategies to ensure that users are always surrounded by the most relevant and closest to their hearts. At the same time, it also pays close attention to social media, news platforms, forums, and other information channels, quickly captures and recommends hot topics and emergencies so that users can always stand at the forefront of information trends and meet their infinite desire for current events.

Through the deep mining and analysis of massive media data, AIGC also shows excellent development prediction ability. It can provide insight into the subtle changes behind the data, reveal potential hot trends and topics, and even predict the topics and trends that may be popular in the future. It provides valuable forward-looking guidance for the media convergence platform, helps

it layout in advance and plan accurately, and brings users a richer, more diverse content experience that keeps up with the pulse of the times (Li et al., 2024).

2.2 The Disadvantages of Artificial Intelligence Generating Media Products
2.2.1 Produce the Ownership Dispute of Creative Copyright
When conducting big data analysis of basic resources, artificial intelligence may use data sources containing copyright protection without authorization, triggering data providers to pursue legal liability. Big data, the basic resource of converged media, often covers many news articles, music, movies, and other multimedia materials. If the algorithm or model of artificial intelligence-generated content fails to accurately identify and filter out potential pirated or infringing content, it may be involved in copyright disputes (Fan, 2024).

Similarly, when artificial intelligence creates a complete media product, unauthorized misappropriation, and secondary creation may also be judged as infringement of the work. In 2023, Li used the open-source software Stable Diffusion to input dozens of prompt words and set relevant parameters to generate several portrait pictures and publish them on the social platform. Subsequently, Liu's account article used the pictures made by Li without permission and intercepted the signature watermark. During the trial, the court held that the pictures created by Li using the open-source software Stable Diffusion were independently completed by him, reflecting his personalized expression. Therefore, the pictures involved conformed to the definition of the work and were protected by copyright law.

There is no unified opinion on the copyright issue of AI-generated content. For example, there is a view that the content generated by AI should be regarded as machine creation and does not enjoy copyright; on the other hand, another view holds that as long as human beings make intellectual input in the process of creation, the content generated by AI can be regarded as works created by human beings and enjoy copyright. Artificial intelligence provides a powerful assistant for human beings in the process of creation, which greatly enriches and expands the dimension and possibility of creation, but its generated content is often difficult to distinguish from human creation. This ambiguity requires us to fully consider the subjective intention and expression of human creators when judging creative activities rather than simply treating artificial intelligence as an independent creative subject to determine the attribution of responsibility.

2.2.2 The Production Probability of Bad News Exists
The material library of basic resource analysis of financial media relies on a wide range of data sources, such as social media platforms and news websites. The false information or rumors hidden in these data sources constitute a risk that cannot be ignored. When artificial intelligence technology processes these data, if it fails to effectively identify the authenticity, it may mistakenly regard false content as a fact, resulting in misleading news reports. In addition, the rigor of data processing links, such as data cleaning, integration, and induction, is crucial to ensure the accuracy of the analysis results. Once there are defects or operational errors in these links, false information may be mistakenly included in the analysis process, which in turn affects the final analysis results, resulting in wrong or misleading information being released.

Under the algorithm of the fixed template and formulaic writing mode, the content produced by artificial intelligence lacks rational thinking and emotional participation and lacks the temperature and humanity of news. This intelligent news production model is usually based on pre-designed computer programs, nested templates, selected established database information sources, and mechanized production of news. News in this mode does not have the ability of thinking and innovation, nor does it have the breadth and depth.

When artificial intelligence analyzes the big data of existing news materials, it will accumulate material cases as creative storage and extract creative ideas in the report, to be given value judgment and guidance by the mainstream opinions in the current society, and form thinking bias after the algorithm is solidified. Some of the information will be constantly created for similar media products because of more analysis and learning of artificial intelligence, and some of the information will be difficult to enter the circulation channel of mass communication because it is less studied by the algorithm mechanism. In the long run, the consequence is to lead to a more simplified mimicry environment of society.

2.2.3 Technology Application Barriers and Talent Shortage
The efficient operation of AIGC technology relies on complex algorithm models and huge computing resources, which constructs a significant technical barrier. This barrier means that only those media convergence institutions with strong technical strength and rich resources can effectively get involved in the development and application of AIGC technology. For small-scale or resource-constrained media convergence institutions, this barrier constitutes an insurmountable obstacle and limits their exploration and development in the field of AIGC.

The complexity of technology is also reflected in the dependence on high-level artificial intelligence application professionals. Nationwide, the supply of such professionals is relatively scarce, making many organizations face difficulties in recruiting and training talents who can be competent for the application of artificial intelligence technology. The shortage of talents not only restricts the popularization speed of artificial intelligence technology but also affects the application effect of artificial intelligence content production in the big data environment of integrated media basic resources.

3. The Specific Application Effect of Artificial Intelligence in Media Convergence

AIGC technology is profoundly changing the field of media convergence. Automatic content generation, such as text and speech synthesis, has significantly improved the efficiency of creation and user experience, such as the automatic generation of news summaries, rapid audio news production, and automatic generation of video subtitles, which meets the immediate and barrier-free needs. Intelligent content editing, such as image recognition and intelligent video editing, not only improves editing efficiency but also optimizes the viewing experience of video through sentiment analysis. The innovative subject presentation of AI anchors and AI singers breaks the boundaries of traditional communication and provides an intuitive and vivid audio-visual experience. The drive for user-generated content (UGC) and the reduction of the semantic expression threshold have stimulated users ' enthusiasm for creation, enriched the content ecology of the platform, and enhanced community activity. The cross-border integration of generative AI technology not only broadens the creative boundary but also stimulates creative inspiration, promotes cultural innovation and communication, and comprehensively enhances the innovation and participation of integrated media communication.

3.1 High-quality Communication Content Creation
3.1.1 Automated Content Generation: Automatic Text Generation and Speech Synthesis
The artificial intelligence deep learning model can automatically analyze the core information of articles or news, extract key points, and generate a refined summary. This technology not only helps readers quickly grasp the essence of the article and save reading time but also optimizes the information display of the media platform and improves the user experience. Machine writing and automatic news reporting can produce a large amount of high-quality text content in a very short period, providing unprecedented creative efficiency for the media industry enabling the media convergence platform to respond quickly to events and provide instant news reports.

Artificial intelligence speech synthesis technology is profoundly changing the way news broadcasting. By automatically converting news text into natural and smooth speech, media organizations can quickly generate high-quality audio news, which greatly improves the efficiency of news production and provides a variety of broadcasting styles for the audience. Speech recognition technology can automatically transcribe the speech content in the video into text, and media organizations can efficiently generate subtitles, which not only reduces the burden of manual subtitle production but also provides the audience with accessible video content.

3.1.2 Intelligent Content Editing: Intelligent Image Recognition and Video Editing
Image classification and recognition technology of artificial intelligence, through training large-scale image data sets, deep learning models can automatically detect and classify various elements in images, including but not limited to objects, background environments, color combinations, etc., and provide media editors with real-time and accurate image information annotation and classification. It greatly reduces the workload of manual image classification and annotation and significantly improves the efficiency and accuracy of content editing. Scenes that used to require editors to spend a lot of time manually screening and marking images can now be quickly completed by deep learning models, ensuring a high degree of matching of image content with the needs of the media convergence project (Zhang, 2023).

Artificial intelligence combines key frame technology with sentiment analysis technology to achieve more intelligent and humanized video clips. Through computer vision technology, the key frames in the video are automatically detected and extracted, the correlation and coherence between the key frames are analyzed, and the editing actions such as deleting redundant fragments, adjusting the editing rhythm, and adding transition effects are automatically performed to improve the basic structure of the video. Then, sentiment analysis is used to automatically adjust the rhythm and screen switching of video clips so as to strengthen the coherence and impact of emotional expression, optimize the details and rhythm of clips, make the video content not only clear in structure and logical coherence, but also accurately touch the audience's emotions, and improve the overall viewing experience and communication effect.

3.2 The Participation of the Communication Subject of The New Vision
3.2.1 The Innovation Subject Presentation of AI Anchors
Artificial intelligence AI hosts are created through advanced computer graphics technology and deep learning algorithms. They can imitate the appearance and behavior of real people, achieve smooth and natural language expression, and flexibly adjust

expressions and body movements according to different situations and emotional needs. Under the design of the converged media platform, AI hosts can transform their appearance design and sound characteristics according to the specific environment and topic nature of the report and achieve a high degree of integration and coordination with the actual scene. The application of this technology can break the boundaries of traditional reporting and provide a more intuitive and vivid news experience for the audience. At the same time, it has a high degree of flexibility and adaptability, which is not limited by time and space, and quickly realizes news broadcast and continuous output content.

AI virtual anchor technology is a virtual anchor created for Xinhua News Agency. It supports multi-language and multi-dialect and can change posture and shape to carry out sustainable news dynamic real-time broadcast. During the Paris Olympic Games, CGTN used AI digital host Ainia to deliver the latest competition information in a novel audio-visual presentation, demonstrating the innovative application of AI technology in news broadcasting.

3.2.2 The Independent Subject Signature of AI Singers
Chen Shuiruo, an AI virtual singer jointly launched by NetEase Cloud Music and Xiaobing, showed the national style theme song and dance performance program as an independent participant at the 2023 Artificial Intelligence Achievement Exhibition. When AI participates in the production and presentation of media products in the form of independent signature, it becomes an independent communication subject. At the production level, it means that AI is not only a tool or an assistant but also a leader who can independently complete the creative task, reshape the creative ecology of media products and provide more diversified media products for the audience.

3.3 Participatory Communication User Experience
3.3.1 Actuate Users to Generate Content
Driven by user-generated content (UGC), AIGC technology can significantly improve the diversity and efficiency of users ' content creation on the converged media platform. The Tik Tok AIGC application generates music, background, special effects, and other elements through AI. Users only need to select the AI creation function in the Tik Tok creation center to quickly generate diversified creative videos to enjoy a more intelligent and personalized creation experience. It greatly helps users to easily produce high-quality creative videos, reduces the threshold of content creation, and significantly improves user participation and satisfaction. This innovative application not only enriches the user-generated content of Tik Tok but also forms a unique community culture, which further promotes the rapid development and global popularity of the platform.

The platform actively encourages users to share knowledge and experience through question and answer. To further improve the quality and interactivity of content, Zhihu introduces AI-assisted writing aids. AI system can automatically provide writing directions, article structure suggestions, and reference materials according to the topics or keywords entered by users, to help users quickly conceive and complete articles. Automatically generate article abstracts, which is convenient for users to quickly browse and understand the core views of the article; accurately identify the key information and terms in the article, help users optimize tags and classification, and improve the retrieval efficiency of content; automatically detect grammatical and logical errors of articles, provide suggestions for revision, evaluate the professionalism and depth of articles, and guide users to improve the quality of content. This AI-assisted writing tool reduces the threshold of high-quality content creation improves the efficiency of user creation and the professionalism of the article. High-quality content also attracts more users to participate in discussion and sharing, and community activity and user stickiness are significantly improved. At the same time, it deepens the academic and professional atmosphere of the platform and attracts experts and enthusiasts in more fields.

3.3.2 Lower the Threshold of Semantic Expression
Generative AI technology is innovating the boundary and connotation of language expression. It deeply understands the user's input and intention, combines personal knowledge background, interest preference, and thinking mode, and provides users with customized language suggestions and content generation so that the expression integrates distinct personal colors so that each user's voice becomes unique and highly recognizable. This technology breaks through the limitations of traditional language expression in vocabulary, grammatical structure, and creative inspiration. Through massive data training, generative AI can provide rich and diverse expression methods and innovative thinking, stimulate users ' creative inspiration, and realize the freedom and innovation of language expression. More importantly, AI technology can screen and integrate massive information related to topics, providing users with in-depth analysis and multi-angle perspectives, making content creation not only richer and more diverse but also able to meet the needs of different audiences (Liu, 2023).

Generative AI is not limited to language support. It can also promote cross-domain integration, skillfully combine elements such as science and technology, culture and art, broaden the boundary and depth of content creation, and bring unprecedented cross-border creation possibilities to users. In the rigorous expression of academics, generative AI can deeply understand professional concepts, provide accurate academic language suggestions, help scholars build a more rigorous argumentation framework, and

expand research horizons; on social media, it can capture popular trends, integrate into the current hot spots, make the user's content closer to the audience, and stimulate interaction. More importantly, generative AI can stimulate users to explore those untouched expression angles, encourage innovative thinking, and make every creation a new attempt and breakthrough, which not only enriches the diversity of content but also promotes cultural exchange and innovation. Whether it is the rigorous expression of academic creation or the relaxed humor of social media, AI can provide corresponding language style and content suggestions according to specific scenarios and needs, making the content creation process full of surprises and inspiration collisions, meeting the diverse content creation needs. With the help of generative AI, users can explore unexpected expression angles and innovations, making content creation a creative journey full of infinite possibilities.

4. The Application Strategy of Artificial Intelligence in Media Convergence

In the media convergence environment, the application of AIGC technology needs to strictly avoid behavioral ethical risks, especially pay attention to copyright management and protection, and maintain the originality and legitimacy of the content by strengthening copyright identification technology, ensuring the legality of training data, adopting digital copyright protection technology, establishing internal audit process and strengthening copyright education. In terms of improving the quality of AIGC media products, priority should be given to ensuring the quality of data sets, continuously optimizing AI algorithms, and combining manual review and user feedback mechanisms. In terms of the innovation of the operation structure of intelligent converged media, media institutions should deepen the application of technology, data analysis to drive decision-making, personnel training, and internal innovation to achieve content innovation, user growth, and operational efficiency improvement, and promote the healthy development of the converged media industry.

4.1 Avoid the Ethical Risk of AIGC Behavior

To avoid the ethical risks of AIGC 's behavior in the media convergence environment, copyright management, and protection have become the key to safeguarding the rights and interests of content creators and promoting the healthy development of the industry. Strengthen copyright identification technology, invest in more advanced copyright identification algorithms, and ensure that AI systems can accurately identify and filter out any pirated or infringing content, thereby avoiding legal disputes and copyright disputes (Wang, 2023). Ensure that the training data source of the AI model is legitimate, strictly abide by the data license agreement, and avoid the use of any unauthorized copyrighted material to ensure the compliance of the AI system and the originality of the content. When using authorized content, the AI system should strictly abide by the scope of use, time limit, and geographical limit stipulated in the authorization agreement to avoid the risk of copyright infringement caused by over-range use. By using modern copyright protection technologies such as digital watermarking and encryption, the original content is marked and protected, effectively preventing the content from being illegally copied, tampered with, or disseminated and safeguarding the legitimate rights and interests of the content creators. Establish a copyright audit process within the AI system, regularly check the copyright compliance of the content generated by the system, promptly correct any potential infringement, and ensure copyright legitimacy in the process of content generation and distribution. Conduct copyright legal education and training for designers, operators, and end users of AI systems, enhance copyright awareness, ensure that participants understand and respect copyright rules, and jointly maintain the AIGC application ecology in the converged media environment.

As a national-level media organization, CCTV took the lead in applying cutting-edge technology to launch a converged media intelligent control platform, integrating intelligent audit services, covering the entire process of content production and dissemination, ensuring that all kinds of content from video, pictures, audio to text can be obtained. Risk prevention and control, and through the in-depth application of intelligent algorithms, can effectively identify and intercept potential copyright infringements, and use advanced content recognition technology to ensure the authenticity and accuracy of information, and establish a model for maintaining the healthy ecology and copyright protection of cyberspace. Beijing Tengruiyun Culture & Technology Focuses on the field of digital copyright protection. Through innovative digital dark watermarking technology, it adds invisible digital logos to AIGC content, which can not only effectively prevent the risk of copyright infringement, but also provide accurate rights protection support for the original creators when the original content is improperly used. The existence of digital watermarking can retain the original copyright information even when the content is re-edited or disseminated, which provides a strong technical barrier to the copyright protection of media content.

4.2 Improve the Quality of AIGC Media Products

The performance of the AIGC model and the quality of output content are highly dependent on training data. Improving the quality of AIGC media products should give priority to ensuring the quality of data sets, including the accuracy, diversity, and representativeness of data, to avoid bias or low-quality content of the model and introduce multi-source and multi-angle data to improve the comprehensiveness and depth of AIGC products. Continuously optimize and innovate AI algorithms to improve the complexity and flexibility of the model so that it can better understand the context and capture subtle emotional changes and style characteristics. By introducing advanced technologies such as deep learning, natural language processing (NLP), and computer vision, AIGC 's creativity and personalization are improved (Liu & Zhang, 2024). Manual review is still an indispensable

link to ensure the quality of content and avoid errors and prejudices. A professional manual review team is established to conduct detailed inspections of AIGC products to ensure the accuracy and suitability of content. Establish a user feedback mechanism to collect users ' opinions and suggestions on AIGC products as the basis for model iteration and product improvement. Continuously monitor product performance, adjust algorithm parameters and data strategies according to feedback, and achieve dynamic optimization of products. Focus on the user experience, optimize the interface design and interaction process of AIGC products, ensure the readability and accessibility of the content, understand the preferences and needs of the target audience through user research, customize the content presentation form, and improve user satisfaction and participation.

Data set optimization ensures the accuracy, diversity, and representativeness of the data. High-quality training data is the key to the success of the AIGC model. Taking ' Story Forge ' AI-assisted content creation as an example, the training data set of its AIGC model covers news, literary works, social media content around the world to ensure the representativeness of the data. The richness of the model output content is ensured by constructing a multivariate data set, and the depth and breadth of the data are ensured by using NLP technology for semantic analysis and emotion recognition. Story Forge also ensures the accuracy of the data through algorithm screening and manual verification, avoids the bias and errors of the model output content, and makes the generated content more in line with the real-world situation.

4.3 Intelligent Media Operation Structure Innovation
CNN has launched AI news assistant ' Clooney ' to use artificial intelligence technology for content creation and distribution, such as natural language processing (NLP) for text generation, image and video processing technology for multimedia content creation, combined with virtual reality (VR), Augmented Reality (AR) and other cutting-edge technologies, to provide users with immersive media experience, expand the expression and dissemination channels of content, and achieve this efficient content production and wide dissemination coverage (Han, 2022). Driven by artificial intelligence big data analysis, Netflix uses big data to analyze users ' viewing behavior, optimize its recommendation algorithm, analyze users' behavior, preferences, and needs, provide data support for content creation and communication strategies, realize user growth, precision marketing, and advertising strategies, and improve advertising effectiveness and revenue. To strengthen the introduction and cultivation of technical talents, the BBC has established the "Future Media Laboratory," which aims to attract and cultivate top talents in the fields of artificial intelligence, big data, and cloud computing, promote the integration and innovation of media and technology, form the working mode of "human intelligence coordination," and jointly promote the innovation and development of media convergence operation. Maintaining sensitivity to new technologies and trends, Bloomberg's Bloomberg Media Lab continues to explore and apply the latest AI and machine learning technologies to optimize operational processes and content production, encourage internal innovation and experimentation, use natural language generation technology, automatically write market analysis reports, and constantly adapt to changes in market and user needs.

5. Conclusion
Under the background of the rapid development of artificial intelligence technology and media convergence, the emergence of AIGC technology has brought unprecedented changes to the media industry. As an important application form of artificial intelligence technology, AIGC can automatically analyze and understand large-scale basic resource data and generate high-quality content that meets specific needs through in-depth training learning and innovative algorithm formulation. The application of this technology in the production of converged media products not only significantly improves the efficiency of information dissemination but also greatly optimizes the user experience, realizes the leap of automatic content generation, personalized recommendation, and interactive experience, and can quickly produce a large number of texts, images, audio, and video, which greatly improves the efficiency and scale of media product generation.

However, as a new technology, AIGC also faces a series of challenges in the production of converged media. On the issue of copyright ownership, due to the ambiguity of the legal definition of the original identification and use rights of the content generated by AIGC, there is still no accurate judgment result after extensive discussion in the industry. In addition, the quality of AIGC news content is uneven, and some output content has factual errors or emotional expression deviations, which not only affects the authenticity and credibility of information but also may damage the credibility of the media. Technical barriers are also obstacles to the popularization and deep application of AIGC. The training and operation of high-performance models require a lot of computing resources, and it is difficult for media convergence institutions with limited resources to acquire and maintain artificial intelligence technology.

In the face of these challenges, the media convergence industry needs to continuously improve the application ability and level of AIGC technology, from technical optimization, ethical norms, legal framework to interdisciplinary cooperation and talent training and multi-dimensional efforts to promote the healthy development of AIGC in the field of media convergence. In the future, the continuous innovation and application of AIGC technology will promote the development of media information dissemination

towards a more intelligent, personalized, and interactive direction, bring more rich, accurate, and immersive media experience to users, and create new growth points for the media industry.

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