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Research in the Use of Artificial Intelligence Technology in Media Integration in China

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Abstract

This paper studies about the continues growth of national economy and innovation of science and technology the level of construction and development of China's artificial intelligence field has made a qualitative leap. The reasonable application of artificial intelligence technology is the most important and indispensable key element of the modern media integration process, which can not only maximize the role of the media in the social scope of communication functions, but also effectively give the advantages of diversified media communication, realize the real time interactive communication between the media and the market users, and comprehensively enhance the core competitiveness of mainstream media. This essay will future analyze and discuss the use of artificial intelligence technology in media convergence, aiming to provide scientific reference opinions for the same industry in China.

Keywords: Artificial Intelligence Technology, Media Integration, Practical Application

Introduction

It is currently an era of technological innovation, and the development of media integration in China should keep pace with the times and keep up with the advancement of the times. The innovative research application of artificial intelligence technology can effectively promote the rapid development of media convergence in China and achieve the goal of optimizing and improving the operation and management mode in the media field. Media convergence essentially means the boundaries of different media forms are melting away, and the functional advantages of each media begin to fuse together, eventually forming an integrated multifunctional composite media. By applying advanced artificial intelligence technology in the integration of traditional media and emerging media, it can realize the broadening of media communication scope, comprehensively improve the quality and efficiency of media communication work, and provide people with more high-quality media experience services.

Multifunctional Composite Smart Media Development in the Context of Artificial Intelligence

In the new era of social development, the media industry is no longer competing only for a single quantity of content resources, but for the ability to optimize and integrate the use of internal resources. In order to stand out in the competitive market, traditional media must improve their ability to adapt to the market and change and innovate. In recent years, artificial intelligence technology has been widely used in media news communication, AI anchor, intelligent terminal, automated media writing and other media development fields, which has greatly promoted the rapid and stable development of China's media industry construction. Yuan(2019)have point out that Under the new median communication pattern driven by two wheels of endogenous resources and AI technology. The integration of traditional media and emerging media is no longer only the integration of different media forms of content, channels and terminals, but also requires the integration of various advanced technologies with AI technology as the core into the construction and development of multifunctional composite intelligent media. Based on those information, more and more media platforms choose to cooperate with contemporary advanced internet technology companies to jointly create media news intelligence products with certain characteristics, as to help themselves cultivate more loyal fan users. For example, in 2017, through investment and cooperation with the famous internet company Alibaba, News Agency innovated and developed a platform called" Media Brain",which is the first media artificial intelligence platform in and can provide diversified and high-quality communication service functions for different types of media organizations in the market to meet the various work needs of different levels of The platform is the first media AI platform in China, which can provide diversified quality communication service function for different types of media organizations in the market and meet the needs of different levels of users. In addition, the People's Daily, a traditional ideological and cultural newspaper, has also started to cooperate with the technology company Baidu to create an "AI Media Lab",which is based on the core capabilities of Baidu's brain and is able to meet the operational needs of the market media in their daily work to the greatest extent. The lab's main focus includes the research and application of AI technologies such as natural language processing and knowledge mapping to assist the People's Daily in producing media news dependently and to improve the quality and efficiency of news content editing.

The integration of market traditional news media and modern internet technology companies will become the development trend of a new round of media integration in the media market. The development of muti-functional composite intelligent media under the background of artificial intelligence and help traditional media platforms effectively relieve the pressure of intelligent research and development work, while improving the level if intelligent work of traditional media enterprises. However, it is worth nothing that traditional media in the process of integration and development with internet technology companies, should not let media intelligence be completely controlled by the full power if internet technology companies, but should focus on cultivating an innovative technical talent team in line with the development characteristics of the enterprise, and by appropriately increasing investment in construction of intelligent media, constantly improve the comprehensive ability of their own media exclusive core technology research and development applications.

Artificial intelligence technology collide with each other in the process of media integration development

Based on the new situation of social development, people are increasingly dependent on the search for the latest news and information on their needs through mobile devices, and the practical application of artificial intelligence technology in the media field can ensure the best quality and perfect news for all users of the market audience, meeting the operational needs of different types of media production activities and the requirements for the rapid dissemination of news content on a large scale. Chen (2018) have explain that The scientific and efficient application of artificial intelligence technology in the development of media integration can make the media news and information content dissemination methods become more perfect, while achieving the goal of optimal integration and utilization of text, image and video information resources, creating more development opportunities for the development of modern media field construction.

Optimize the distribution and use of media information based on artificial intelligence technology

The practical application of artificial in the field of modern media can help each media to realize the personalized development of media communication methods. In the intelligent media platform, the operation of artificial intelligence technology can assist staff to grasp the real-time understanding of different user's needs and preference, therefore as to provide them with targeted recommendations for the media products they need, which can undoubtedly improve the level of service of their own media and attract more potential consumers for the platform. In the traditional news content editing work, the innovative application of artificial intelligence technology can effectively break the shortcomings of traditional news interview work form, prompting artificial intelligence to become the core form of news way work, greatly improving the quality and efficiency of news gathering and editing work. And market media users can use the integrated background of artificial intelligence and media development based on realistic virtual technology and other technical means to complete immersive sensory interaction experience.

Rapid dissemination of media information based on artificial intelligence technology

based on the application of artificial intelligence technology, the media no longer need to rely on traditional manual information processing methods, artificial intelligence can independently classify and process various information resources. This helps media organizations greatly improve the efficiency of information processing and quickly complete the design and processing of various media products. Tang & Cao have shows that in the operation of traditional media organizations, media workers often need to consume a lot of time and energy to optimize and integrate various information resources, while the application of artificial intelligence technology can reduce people's workload, greatly improve the optimization of news information resources processing efficiency, and can also avoid errors in information processing caused by manual operation errors, fully guarantee the accuracy of news content generation. For example, Phoenix News APP can compile an article in 3 second by applying AI technology in the fields of weather forecast, stock market quotation and sports news, the Xiaofeng robot in Cover News APP can complete 1300 words of news graphic writing in only 8.09 second. At the same time, along with the continuous improvement of computer learning and understanding ability of the internet in the future, intelligent machine writing will automatically adapt to various language express language expression

characteristics, and will combine the mainstream language expression style in the market to create news content, catering to public demand to create high-quality news. Compared with human subjective emotions, artificial intelligent will not be affected by external factors, it has more advanced and powerful data and information processing function, which can help media organizations to complete the in-depth analysis of massive data and information processing, and give full play to the social value of the media news text. Artificial intelligence technology can also be used in media content distribution. The original daily exposure content has exceeded 1.2 million, the content distribution volume of Zhihu App has increased by 200%, the per capita hourly rate has increased to 45%, and the click rate has increased by 26%.

Artificial intelligence technology can not only distribute and utilize media information, but also realize the rapid dissemination of media information. To achieve rapid development and meet the different needs of audience, modern media must apply AI technology comprehensively to realize the integration and interoperability of information content, technology use and production process, and as to realize the deep development of media integration.

Practical Application of Artificial Intelligence Technology in Media Integration

Using artificial intelligence technology to enhance core competitiveness media convergence Intelligent Information Collection

In the process of news information collection, traditional media more often arrange news gathering staff to go offline to collect all kinds of the latest news event information, and will be processed into a complete news information products. With the help of artificial intelligence technology under which traditional media and emerging media are organically combined to achieve intelligent aggregation of information sources from various media websites, helping media organizations to comprehensively improve their ability to collect and acquire the latest news and information leads from society. Cai(2019) have claim that like Sina in China, a leading online media company in the market, as one of the four major portals in China ranked at the front with Tencent, Netease, and Souhu, it has accomplished more than 90% of news coverage hotpots fermented in the microblogging platform by using Sina Weibo data for hotpots dissemination algorithm modeling. Since its development in 2018, Sina Media Company has successfully created a “knowledge graph” of hot data information analysis model. In the current development of the media industry, the application of artificial intelligence technology has achieved good work in news and information gathering. For example, Xinhua, Zhiyun Technology, jointly established and invested by Xinhua News Agency and Alibaba Group, aims to empower the media content industry by using artificial intelligence technology to help content producers collect and process news resources content faster and better. Xinhua Zhiyun Technology has developed China’s first artificial intelligence platform for media professionals and successfully launched eight advanced news gathering robots, which can effectively improve the intelligence level of news gathering in text auto-recognition, face tracking and burst recognition, etc. In April 2020, Facebook Messenger launched Buzzbot, a chatbot for developers that can be developed by resident media. When a user speaks with Buzzbot, the bot will oversee the news it is collecting and ask the user a series of questions, such as “Are you following this story? Would you like to provide live pictures or video? The user can choose one of the pre-defined answers based on their situation. Finally, Buzzbot asks users to use emoji to describe how they fell about the news event. In addition, more and more intelligent hardware devices are being used in media

market, which greatly facilitates the work of news gatherers. Smart hardware devices such as Sougou Recorder with recording and transcription function, Xunfei's Xiaoyun Translator with simultaneous translation capabilities, and aerial drones have all helped speed up the collection of news information.

Artificial Intelligence Writing

Artificial Intelligence Writing is widely used in the creation of content in the field of finance, sports and natural disaster news, etc. The relevant staff only need to set the format of the corresponding type of news writing content and the format to complete a fast and accurate match, so that the "fill in the blank" form to achieve the task of artificial intelligence creation of news information reporting. In this way, the task of artificial intelligence creation for news and information reporting can be realized in the form of "fill-in-the-blank". For example, during the Rio Olympics in 2016, China's professional information publishing platform "Today's Headline" developed and launched an writing robot "xiaomingbot", which by docking data information from the Olympic Organizing Committee, was able to the bot was able to write news article and publish them at almost the same speed as the live broadcast of the TV platform. Zhao and Liu have point out that In just six days, "xiaomingbot" created more than 200 news newsletters and information. The artificial intelligence robot writing module was jointly developed by Toutiao and the institute of Computer Science and Technology of Peking University.

It belongs to the first artificial intelligence robot in China to report the Olympic sports events, and can generate news based on various grammar synthesis and ranking learning. For example, in 2019, China Science News successfully developed and launched writing robots such as "Xiao Ke", an intelligent robot capable of generating news from data tables in a way that maximally help its own media organizations to improve the speed of forming news information into article, while also increasing the amount of writing. Compared to domestic, foreign media have certain differences in AI writing. First, the news categories covered are not only limited to sports news reports and financial news reports with clear data sources, but also cover social hot news and breaking news. Second, their data sources are more extensive. Foreign news media media not only have full-text database, but also connect to corporate database. For example, the Washington Post has cooperated with the sports database enterprise Stats.com, and the Associated Press has cooperated with MLBAM. Third, foreign media have broken through the primary stage in the filed of AI writing, and started to explore how to improve the automation of writing robots and how to use AI technology to make them have the writing ability closer to human reporters.

Artificial Intelligence Audit

In the traditional media news content auditing work, media organizations usually adopt the manual auditing method, which requires the investment of more human resources and time resources. Based on modern artificial intelligence technology nutrition, it can rely on image recognition processing technology and natural language processing technology to independently complete the fast and accurate identification of key words and key frames of news information resources, and through the comparison with the database to complete the task of screening out all kinds of bad news, therefore as to maximize the quality and efficiency of news content audit work, and help media organization save more costs. Famous Internet technology companies like Baidu and Huawei have developed their own content audit services to assist staff to complete the artificial intelligence audit of news information. And as

a provider of intelligent image production technology in China, the film spectrum technology, through the scientific combination of artificial intelligence. The system can identify the system and the knowledge graph system, can effectively provide the media organization unit with accurate to frame automated video structured service, and successfully apply the identification content in the management of various image video audit. However, because the current audit method under the application of artificial intelligence technology cannot be controlled scientifically from the dimension of human values, the market media organization platform still needs to adopt the comprehensive way of artificial plus intelligent audit for news content audit management to avoid various negative and undesirable information flowing into the market and affecting the formation of people's misconceptions.

Using artificial intelligence technology to improve production processes in media convergence

In the field of modern intelligent media integration big data technology is widely used in news information retrieval and search, news authenticity verification work. Based on the research and application of various advanced technologies, it has promoted the effective integration of artificial intelligence technology and media in China, and also made artificial intelligence technology smoothly become the core development trend in the contemporary media field, at the same time, the innovative application of AI technology can bring more diverse news production and distribution processes in the field of media integration. In order to realize the scientific and effective integration of traditional media industry with AI technology, it is necessary to create its own core R&D talent team, or to continuously improve the level of research and application of AI technology enterprises in the market. Zhang and Wu (2019) have claim that In the traditional news information presentation work mode, users are often only able to obtain the demanded information by means of simple text, pictures and videos. In the context of the development of artificial intelligence technology application, media organizations can effectively expand the space by reasonably introducing the application of AR technology. This technology, as a kind of virtual information and real world cleverly fused technology, will be applied in the media news dissemination work, can maximize the news dissemination ability, prompt the media market audience group users to experience the news scene information, providing them with a feast for the senses. With the application of AR technology, readers of media information can feel the colorful world of the media, which is impossible to do in the traditional form of media text and picture information dissemination.

Using artificial intelligence technology to strengthen user insight media convergence

The fundamental purpose of media convergence is to better shape the communication competitiveness of mainstream media in the market, help the national government to disseminate positive public opinion, news and information, and build a connection between mainstream media and market audience groups. In order to effectively improve the insight and analysis ability of market users, it is necessary to improve the media platform services with the help of artificial intelligence technology, understand the dynamic behavior characteristics of users in real time, recommend information service products for them, and help eliminate the gap between users and social culture. The composite intelligent media platform built under the application of artificial intelligence technology can record the relevant data information obtained in real time, and rely on graphics recognition, face recognition and question recognition technology to strengthen the interaction with platform users, and eventually become the basic data information corresponding to different individual

users. The intelligent media platform will automatically analyze the data information in the database, and fully and accurately grasp the information needs and preferences of different users, so as to provide an effective and perfect basis for the next step of news information product processing, production, dissemination and distribution. For example, People's Daily Online of China has effectively built a perfect intelligent gathering platform with the help of artificial intelligence technology, which collects high-quality information content resources of the vast majority of mainstream media in the market, and completes the in-depth processing and analysis of massive news information content under the application of artificial intelligence technology, and finally forms standard and perfect data. The platform will also push the corresponding media product content to the corresponding users according to the user portrait system and scientifically according to the user's daily login operation behavior and consumption ability, so as to improve the full chain operation efficiency of the media content industry from the source of creation to the consumption scene. For example, in May 2020, Microsoft released the latest news application NewsPro2.0, which added the function of "news bot". This feature features news recommendations, which are based on the user's instructions to send three relevant stories per day. If a user simply typed "Give me news," NewsPro2.0 would push personalized news to the user. The construction of intelligent media integration platform can also extend the service function. Media enterprises can collect and sort out a large number of valuable data information in real time by means of big data, blockchain and artificial intelligence technology, and use these data to connect the national government, enterprise units and individual users in the market to provide them with social resources.

Summary

Based on these findings, Artificial intelligence technology can quickly provide valuable information to customers with different preferences, improve the accuracy of information, and play the social value of media news text. In addition, artificial intelligence technology can also realize intelligent information collection, artificial intelligence writing and artificial intelligence review, which greatly improves news content review and work efficiency. However, in this process, a combination of artificial and intelligent audit is needed to ensure that negative and bad information does not enter the market. If modern media industry wants to ensure the stable and sustainable development of its own construction and comprehensively enhance the core competitiveness and influence of media platforms, it is necessary to strengthen the innovative research and application of artificial intelligence technology.

In the practice and development process of media convergence, it is suggested that media units and institutions should build their own core technical personnel team and strengthen the continuous training of technical personnel. In the process of realizing media integration, reform the talent training mechanism, cooperate with colleges and universities to cultivate talents in demand, and improve the evaluation system and salary distribution system to encourage talents to keep learning. At the same time, we should strengthen the cooperation and contact with outstanding technology enterprises in the market, so as to give full play to resource advantages, build a professional and perfect intelligent media platform, improve media service functions, and provide diversified and high-quality services for market users. The application of artificial intelligence technology has effectively expanded the boundaries

of media convergence, improved the intelligence level of the whole link of information transmission, and promoted the reform, development and progress of China's media industry.

Reference

- Yuan, B. (2019). *Research on the application of Artificial intelligence Technology in Media Convergence*. Cable TV Technology,38-41.
- Chen,Y. (2018). *Research on the Application of Artificial Intelligence Technology in Media Convergence*. Information & Computer,35-37.
- Tang, B., & Cao, S. (2018). *Research on the application of Artificial Intelligence in Radio and Television Industry*. Radio and Television Information,2(8),24-26.
- Cai, B., Yang, H., & Liu, H. (2019). *Application Research of Artificial Intelligence Technology in Media Convergence*. New Media Research,(5),84-86.
- Zhao, Z., & Liu, R. (2019). *Application of new media Technology in county-level media Convergence* . News Forum,19-21.
- Zhang, H.,& Wu, C. (2019). *The Integration of Artificial Intelligence and Publishing: Internal Mechanism, Practical Problems and Path Selection*. Chinese Journal of Science and Technology,30(3),19-25.