

Exploring the Problems of Applying Intelligent Media in Chinese Journalism Based on the Perspective of Artificial Intelligence

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Abstract. With the rapid development of science and technology, artificial intelligence has gradually entered the field of people's lives, and human society has entered the era of intelligence. Among them, the application of artificial intelligence in the field of news communication is also becoming more and more extensive. Intelligent media technology can help news media acquire information, analyze data, generate content, and improve the efficiency and quality of news dissemination more quickly and accurately. Traditional news gathering requires manual browsing of a large number of information sources to filter out valuable information. Artificial intelligence technology can quickly extract useful content from a large amount of information through natural language processing, machine learning, and other technologies, providing more comprehensive and accurate information to the news media. At the same time, the emergence of artificial intelligence also brings some disadvantages to the news industry, for example, machine news writing is limited by technical rules, which affects the existence of its limitations. This paper will therefore discuss three aspects of the changes brought about by AI in the media industry - the structure of communication, communication technology, and communication philosophy - as well as the ethical and legal issues involved in AI in the media industry. Firstly, the researcher aims to understand the problems in the application of AI in the field of journalism and communication. Secondly, the research theory used in this article is the diffusion of innovation theory. Developed by Rogers in the 1960s, this theory states that some people will be more open-minded and more willing to accept innovations than others when it comes to innovation. Again, the research method used in this article is a qualitative research method of web-based text analysis. Ultimately, the researcher identified three problems: the content of the research was superficial, the emergence of smart media broke the traditional media compliance under ethical laws, and the inadequate mechanism for nurturing talent. Based on these problems, the researcher proposed solutions, which were to conduct an in-depth analysis of the application of artificial intelligence in the communication industry, to develop laws and regulations that comply with the application of intelligent media in the communication field, and to train high-end talents who can use artificial intelligence.

1 Introduction

Some scholars have pointed out that with the development of artificial intelligence, social media platforms can select the information content on social media platforms based on the user's browsing history and user experience, and can have a more comprehensive understanding of the direction of interest and needs of users to improve the efficiency of communication. The concept of artificial intelligence was introduced at the Dartmouth Conference in 1956, a time when the field of research into artificial intelligence began to emerge but experienced two lulls in the 1970s and 1980s. In recent years AI has been on the rise again as the cost of technological development has fallen and AI has become a topic of interest. The main reason for the rapid growth of artificial intelligence in journalism is that it can help journalists to produce more complex and higher-quality stories and to engage in tedious primary tasks. Artificial intelligence can help jour-

nalists analyze and explore data. Since the 1990s, the news media communications sector has gone through three phases. The first phase saw Sina and Tencent break away from the constraints of traditional media to establish their own portals. The second stage was represented by the microblogging and WeChat social media platforms, which broke through the interactivity between the media and the public. The third stage was the intelligent media represented by Today's Headlines and One Point News. These social media platforms apply big data and artificial intelligence technology to develop news and information for users in line with their personal needs, with the media industry as an important part of the social system. The age of intelligence has arrived and the creation of artificial intelligence is one of the consequences of modernity. The use of artificial intelligence in the news industry compresses time and space, for example, AI can help journalists in the news industry to save more time and energy. They are therefore able to devote more time to more professional matters. The advent of artificial intelligence

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has made it possible for users to obtain a more accurate selection of large amounts of information and to increase the efficiency of news production. In 2017, AI was included in the State Council's work report, which changed the traditional news production process and improved its efficiency.

2 Research Gaps, Objectives, and Problems

Most of the research articles and journals in the past have focused on the impact of AI on the field of news communication, however, few of them have conducted in-depth studies on the impact of the emergence of AI on the communication methods and paths of the Chinese media industry, and most of them have remained on the surface. For example, most studies in the past have shown that the emergence of AI in news communication has resulted in faster information gathering and a rapid increase in the production and efficiency of news [1]. Secondly, the emergence of AI has allowed some social media platforms to analyze specific groups of users and to quickly push relevant content to different users when it is relevant to their interests [2]. The researcher looked through past literature and journals and found that most of them mentioned these two aspects. It can be seen that the majority of research has focused on the fact that the advent of artificial intelligence has made a huge difference in the speed of communication in the news industry and in the way users receive content on social media platforms. However, very few articles and journals have studied intelligent media and the ways and paths of communication in China's media industry since its emergence into in-depth research, basically staying on the surface. This article will therefore analyze the emergence of artificial intelligence to provide a more in-depth analysis of the communication methods and paths of the Chinese media industry. Based on the above analysis, the authors have identified the research objectives and research questions.

RO: Goes to explore the issues that arise from the application of artificial intelligence in the field of news communication.

RQ: What are the problems with the application of AI in the field of journalism in China?

3 Research significance

Smart media has become an intermediary in the daily communication and news dissemination of the public. The news communication industry needs to be more aware of the drawbacks and biases brought about by smart media. Artificial intelligence is just a form of technology, an expansion and extension of human functions, and an important variable in the transformation of the news communication industry. Based on past articles and issues it can be seen that smart media can take up information collection, data collation, and content creation, freeing media people from some of the tedious tasks and thus saving time for creative work. However, there are drawbacks to the emergence of artificial intelligence. It has a number of legal and ethical issues, so the news commu-

nication industry should be aware of the need to protect personal privacy while using intelligent media.

4 Literature Review

Through the established literature search, the authors found that there have been many relevant studies done by scholars on the impact of artificial intelligence on the communication industry. The main focus is on three areas one is the relationship between intelligent media and algorithms. The second is the application of AI in the field of journalism and communication. The last area is the ethical and legal implications of AI.

5 The relationship between intelligent media and algorithms

Many studies in the past have shown that algorithms have infiltrated the social media platforms used by the public with the advent of the smart media era. News media recommendation algorithms are specific settings of computer programs that actually push specific information news processes based on user preferences and data. The advent of algorithmic recommendation technology has improved the efficiency of users' access to information in the information age. For example, when a user likes to show certain interests on a social media platform, the social media platform uses an algorithmic analyzer to filter out information content that matches the user well [3]. However, the lack of value judgment in algorithms is one of the dilemmas of AI-enabled 'smart media' news dissemination. Nowadays, "smart media" news dissemination is based on an algorithmic recommendation model, where news is recommended through data analysis, and user preferences are inferred. The algorithm itself does not have the ability to judge the value of the information, but only exists to match the relationship between the media product or service and the user, and cannot judge the value of the news on its own, the machine only partially replaces the work of the human, the data and algorithm-led news production have its own limitations [4]. Secondly, some studies have shown that social media platforms use algorithms to make the information users get is the personal preferred views and topics This ultimately results in too much vulgar content, as well as users receiving single content, and the recommended news views being consistent with users' personal views, ultimately resulting in users receiving information that is narrower than it really is, without them being aware of it, resulting in a lack of information[5].

From these past papers and journals, it is clear that AI is widely used in the media field bringing great convenience to the news communication industry but there are also many ethical issues.

6 Intelligent media in the field of communication

The emergence of intelligent media has changed the traditional habits and lifestyles of the public, especially in the

field of machine news writing, which is widely used in many areas, where artificial intelligence can generate news in tens of seconds or even seconds and with far fewer errors. Secondly, studies have shown that artificial intelligence has become a new tool for everyday public communication and information access. Artificial intelligence can enable more functional computing and achieve more of what people set out to do.

Artificial intelligence and virtual reality technologies are bringing huge changes to news communication, firstly, in the mode of communication, smart media has enabled personal customization for users on social media platforms, completely changing the "communicator-centric" model of the past; secondly, in the field of communication, smart communication has broken through the limitations of traditional media such as text, pictures, sound, and video. And, allowing the public to experience news in a virtual space. The entry of AI into the media industry has led to the combination of intelligence and artificiality in the information age. AI can not only accurately distribute the content of news media and improve efficiency, but also develop and push the preferred information for different users. The speed and efficiency of news gathering have increased rapidly with the advent of intelligent technology. For example, after an earthquake, it took only about 20 seconds for AI to collect the location and parameters of the earthquake and provide a quick report[6].

7 Legal and ethical issues with the emergence of smart media

However, some scholars suggest that artificial intelligence also has ethical and legal implications. This is because robots do not write objectively and extract incorrect information that can violate the privacy of users. This raises the question of who owns the copyright of news written by machines. At the same time, other studies have shown that most news platforms are based on users' personal information and preferences, so users only pay attention to what they like and ignore the objective judgment of the overall context, creating problems for individual consensus. In addition, most social media platforms make recommendations based on the popularity of the news and lack the expertise to screen and moderate the information, so that vulgar and unhealthy content is inevitably recommended to users. Similarly, some studies have shown that some users have given up their rights to the platforms and therefore some media platforms have a lot of power and abuse technology. This ultimately leads to the violation of users' rights to privacy and choice [7]. Secondly, some scholars have pointed out that in China the original ethical media codes were mainly in the traditional media fields such as journalism, television stations, and newspapers, which are no longer applicable to the communication field that has entered the smart media era [8]. As a result, many legal issues have arisen in the field of news production after the emergence of smart media.

Overall, it is clear from past articles and journals that artificial intelligence brings convenience as well as challenges to the news media industry. However, in past studies, researchers have only focused on the great con-

venience that the emergence of AI has brought to the news industry. Few scholars have studied the problems of the application of AI to the Chinese media industry after its emergence. The majority of articles and journals have only scratched the surface of the many benefits that AI has brought to the news and communication industry.

8 Application of diffusion of innovation theory in the media industry

Diffusion of innovation theory is a theory developed by Rogers in the 1960s that advocates the acceptance of new ideas, new things, and new products through the media. The theory is that some people are more open-minded and more willing to accept new innovations than others. Secondly, the diffusion of innovation theory includes five stages: the understanding stage, the interest stage, the evaluation stage, the trial stage, and the adoption stage, and five groups in the diffusion of innovation: innovators, early adopters, early followers, late followers, and laggards. The applications in this article, for example, caused a huge wave after the emergence of smart media, and an early segment of the population started to apply smart media in the news media industry. Next, some of the higher-status people as well as leaders of the industry adopted AI in the news media industry. The immediate following adoption of the adoption of AI in the news media industry was well thought out. Lastly, some of those who refuse to adopt are due to information blockage.

The theory of diffusion of innovation is in the planned promotion of new technologies and ideas, and once the public is generally aware of new things, it is time to mobilize interpersonal channels and spread persuasive messages with the help of interpersonal communication networks.

9 Research Methodology

The emergence of smart media has caused a huge change in the news industry. It has caused huge changes in communication paths, communication structures, and communication technologies in the news communication industry. But at the same time, it has also brought about some negative effects that relate to ethical laws. This article uses a combination of qualitative research methods of web text analysis and aims to explore the use of artificial intelligence in journalism and the changes it has brought about.

10 Potential problems

10.1 Research stays on the surface

Most of the articles in past research have focused on the impact of the advent of artificial intelligence on the news communication industry. But these impacts have only scratched the surface. For example, many articles point out that the emergence of artificial intelligence has brought a lot of convenience to the news communication industry and increased the efficiency of journalists. There

is no in-depth study of the impact of the emergence of intelligent media on the news media industry.

10.2 Disrupting media compliance under ethical laws

Artificial intelligence, the most iconic disruptive technology, brings potentially huge development dividends to human society, but at the same time, its uncertainty may bring many global challenges and even raise fundamental ethical concerns. And many studies have shown that the legal ethics that used to apply to traditional media no longer apply at all with the advent of smart media, so new laws and regulations are needed.

10.3 Talent development is not keeping up

With the rapid development of artificial intelligence, the need to train human resources has increased, but the traditional education system is no longer able to meet the need for human resources training. This has led to an urgent need to train a large number of people who can use AI [9]. In addition, the inability to meet talent has also led to some disruption in the integration of AI and journalism [10].

11 Solutions

11.1 Enhancing AI's ability to dig deeper into news information

The integration of artificial intelligence and journalism can reduce time costs. But it is unable to cover a news event in depth. Therefore the ability of AI to dig into news information should be strengthened. This can be achieved by matching professional journalism expertise with assistance, or by writing new programs.

11.2 Develop laws and regulations that are in line with the application of intelligent media in the field of communication

First, formulate policies and regulations related to the application of AI in education, strengthen the ethical awareness and ethical quality of industry staff, and protect data security and personal privacy from being violated. Secondly, establish technical specifications for the AI industry as well as a reasonable management and protection mechanism. Finally, we should effectively build a safe and stable intelligent education and teaching environment, and protect data security and personal privacy from infringement.

11.3 Mechanisms for training talents

Firstly, we should promote the introduction of AI and other courses into primary and secondary school classrooms, support the construction of AI-related majors in universities, and improve the system for training innovative talents. Students will be enlightened through AI

courses to develop the use of programming and computational thinking to solve real-life problems, promote digital survival, and adapt to the future development of a smart society. Secondly, the speed and efficiency of hiring smart technology talent selection is increased, and staff innovation incentives are used to improve the overall capabilities of the team.

12 Innovation points

The researcher takes a deeper look at the impact of smart media on the news and communications industry, not just in terms of what artificial intelligence brings to those working in the news and communications field, but from multiple perspectives.

13 Limitations of the paper

The results of the study are not objective because of the qualitative approach used. Therefore, the researcher needs more literature and articles to support the research. In addition, most of the content of this thesis is summarised in past articles and journals, borrowed from previous research, and not supported by a large amount of real data.

14 Conclusion

The age of intelligence has arrived and the opportunities and challenges it brings to us in the face of new technology are simultaneous therefore people should look at the impact of artificial intelligence objectively. While the public can enjoy the convenience of artificial intelligence, they should also think about the disadvantages of intelligent media for the news industry. It is important to take stock and adopt strategies that will enable AI to be used for the benefit of humanity.

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