

Analysis of game results of AIGC empowering journalism

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Abstract: AIGC empowers journalism to create a new era of intelligent media. In the context of human-computer symbiosis, AIGC's generative artificial intelligence improves the quality and efficiency of inclusive journalism, but at the same time, it is also accompanied by the risks of ethical misconduct such as news content distortion, information cocoon room, privacy leakage, algorithm bias, and unknown copyright ownership. Correctly understanding and properly controlling AIGC generative artificial intelligence technology, balancing the symbiotic integration relationship between AIGC and the news industry, reducing the negative sum game effect brought by artificial intelligence to the news industry as much as possible, and realizing the Pareto optimum of human-machine game are the only way for the reform, transformation and innovation development of the news industry.

Key words: AIGC; Journalism; Human-machine symbiosis

At the Dartmouth conference in 1956, John McCarthy and others first proposed "artificial intelligence" and introduced it into the academic research field. Artificial intelligence refers to the machine simulation of human intelligence, through continuous learning and training from the environment and experience, can imitate human cognition and behavior, so as to think and act like human programmability, and through expert system (ES), natural language processing (NLP) and Machine learning algorithm (MLA) and other ways widely used in various fields of social life. The rapid development of mobile Internet and the vigorous promotion and application of information technologies such as metaverse, super algorithm and big data have provided theoretical and practical support for the increasing maturity of artificial intelligence. The launch of generative artificial intelligence represented by OpenAI's top-streaming product ChatGPT and Baidu's "ERNIE Bot" is a standard for artificial intelligence to enter a new stage of development and embed into the news industry in multiple dimensions. In "Big Tech, AI, and the Future of Journalism" (2019), author Jason Whitaker talks about the five big tech companies (Amazon, Apple, Facebook, Google, and Microsoft) that are heavily developing AI to influence the future of journalism. I attended a Vientiane Times workshop on ChatGPT's impact on journalism in Laos and reviewed the relevant literature, and found that nearly 80% of respondents have used news recommended by Facebook, more than 63% of students have obtained online shopping recommendations from AI, and only 3% of students have not been exposed to these features. The Chinese government first proposed the "AI +" action in the 2024 government work report, emphasizing the development of new quality productivity and the use of artificial intelligence technology to empower thousands of industries. In the field of news media, AIGC (Artificial Intelligence Generated Content) brings intelligent change and promotion to the collection, generation and dissemination of news content. The deep integration of artificial intelligence and journalism, has brought unprecedented opportunities and challenges to the production and dissemination of news industry.

1. Analysis of positive sum game results of AIGC empowering journalism

1.1 Intelligent drive for news content production and dissemination

In the era of intelligent digital media, AIGC model gives intelligent elements in the whole process of news content production, accelerates the reform of traditional news content production output mode, and generative artificial intelligence promotes the innovation of news production and dissemination with high efficiency, high quality and high scale. In the news gathering link, ChatGPT, "ERNIE Bot" and other intelligent generation models, through big data analysis and calculation, can quickly grasp the information content related to a certain event from the massive and complex information, and automatically decode and process the news material through NLP to extract and process the key information content. AIGC mode breaks through the perplexity of traditional news gathering influenced by time, scene, manpower and other factors, greatly improves the efficiency and accuracy of news gathering. In the process of news editing, generative artificial intelligence can efficiently proofread, typeset, classify, touch up and perfect news articles, which not only reduces the burden of journalists, but also improves the editing quality and efficiency of news articles. The main body of news production is reshaped by artificial intelligence technology, and the production mode of human-machine collaboration will become the normal of future journalism. In the link of news communication, generative artificial intelligence breaks through the barriers of newspapers, magazines, radio stations and other media. With the help of the Internet and social media platforms, and through aggregation intelligent algorithms, it analyzes users' interests, preferences, habits, accurate portraits, and real-time push, which broadens the communication path of news products and improves the communication efficiency and accuracy of news products. At the same time, the news product represented by the VR/AR metaverse concept is the result of the integration and innovation of the generative artificial intelligence AIGC and news and media. The news distribution changes from static mode to dynamic multiple mode, which opens a new stage of the production and dissemination of news products.

1.2 Technical changes to news production and operation logic

The emergence of generative artificial intelligence (AIGC) broke the epistemological theory of digital technology "instrumentality", "science and technology has thus shifted from relatively pure 'instrumentality' to the human brain function that human beings are proud of." Under the AIGC model, the workers of the news field and the technology field enter a new field together, that is, the field of human-

computer symbiosis, and interact with the content equally. The process of news production and dissemination is actually a process of co-construction between human and artificial intelligence. Generative artificial intelligence, represented by ChatGPT, integrates into the news industry as an intelligent production subject. The professional boundary between news field producer and technical field producer is fuzzy. Generative artificial intelligence breaks the subject-object relationship between human and technology from the practical dimension of content production. AIGC, as a revolutionary productivity tool, has changed the production and operation logic of the news industry. The subject value of the machine exceeds the tool value, and people are no longer the only information producer. The news is integrated from professional production to intelligent production, the traditional news production and communication process collapses, and the intelligent mode is established.

2. Analysis of negative sum game results of AIGC empowering journalism

2.1 Reconstruct the ecological environment of news practitioners

AIGC model embedded in the field of news industry promotes the ecological environment of news practitioners to change. Generative artificial intelligence has replaced most of the human labor in the process of news collection, editing, writing, communication and production, saving a lot of manpower, material resources and financial resources. Intelligent writing tools and intelligent recommendation algorithms have greatly improved the efficiency and quality of news production and communication, which will certainly affect the employment positions and career prospects of journalists. On the one hand, AIGC empowers the news industry to improve quality and efficiency and reduces the workload and burden of news practitioners, but at the same time, it also reduces the job demand of news practitioners. A large number of news organizations optimize the talent structure and department setup, and news organizations with weak competitiveness are eliminated from the news market under the fierce competition situation, and practitioners in middle and downstream news organizations face the risk of unemployment. On the other hand, under the impact of AIGC model, the access threshold of news is reduced, and the social status of news practitioners is damaged, which may have adverse effects on their career prospects and mental health. They need to reconsider their own competitive advantages and disadvantages and value positioning in the era of intelligent media, and continue to learn new technologies of artificial intelligence in the role reshaping. And constantly improve the insight, ideological quality and professional value of news production and dissemination to cope with the challenges brought by artificial intelligence.

2.2 AIGC empowerment leads to news ethics anomaly

News ethics are reflected in the accuracy, objectivity, fairness, credibility, values and other aspects of news reports. Firstly, there is a hidden danger of false information in the news production supported by AIGC generative artificial intelligence. Artificial intelligence technology itself has a neutral attribute and does not have the ability to identify authenticity and error correction, but it has strong logic and reasoning, and the false and fabricated information sources can also be perfectly packaged and refined into complete and rigorous news products, which makes it difficult for the audience to identify the authenticity and accuracy of news events, which may lead to the spread of fake news and other harmful information. Which may cause serious consequences for individuals and society as a whole. Moreover, the source information input by AIGC large language model in the learning and training stage also contains some risk information, which may cause social instability factors. The risk information is also absorbed and analyzed, and they may be used to produce misleading or malicious ideas, which leads to the information output by AIGC model may contain discrimination, prejudice and hate contents, and damages the professionalism and credibility of the news media. Secondly, the phenomenon of homogenization of news production under AIGC mode is serious. AIGC technology adopts the paradigm of large model output, and the language model generates multiple simplified units of news articles. There is no need to report on the scene, and operators only need to nest information for the modeled news topics. The media environment of this paradigm leads to the lack of deep insight, warm emotion and humanistic care in the news report, which can not trigger the public's thinking and resonance. The dimension of the news report also turns from three-dimensional to flat, resulting in information cocoon room, and the quality of the content is uneven. Finally, the copyright ownership of news production under AIGC model is unknown. There are still great differences in academic circles and judicial practice on whether the works generated by AIGC mode are protected by copyright law, because the composition of such works is often the combination of original elements and existing texts, and it is difficult to define the subject of news production. Domestic journal C does not accept articles that are signed by any big language model tool like ChatGPT alone or jointly. Foreign SCI journals have made it clear that they do not allow the use of text generated by ChatGPT in papers, and ChatGPT cannot be listed as a co-author.

3. Strategy: human-machine balance symbiosis realizes the Pareto optimality of the game

Max Weber's concepts of "instrumental rationality" and "value rationality" are key tools for analyzing modern society. Instrumental rationality and value rationality are opposites. When discussing the balance of man-machine relationship, the balance of these two kinds of rationality is particularly important. Instrumental rationality is the means used to achieve the goal, while value rationality is the spiritual value to be realized by human beings. The task that instrumental rationality cannot complete can only be realized by value rationality. While AIGC's generative artificial intelligence improves the quality and efficiency of inclusive journalism, it is also accompanied by the risks of ethical anomaly such as news content distortion, information cocoon room, privacy leakage, algorithm bias, and unknown copyright ownership. In the human-computer symbiotic relationship, it is not only the pursuit of efficiency and utility, but also the value rationality as the leading factor. It is necessary to strictly control the application boundaries and guidelines of AIGC model, but also to adhere to the values

and ethical standards of news professionals, and carefully balance the primary and secondary relationship between ethical responsibility and technical power. The positive effect of AIGC model in the process of news production and dissemination should be greatly stimulated. From the subject level of news professionals, journalists should keep pace with The Times, keep innovation, constantly improve learning ability, enhance work efficiency, play a key role in decision-making news value, maintain news credibility and adhere to ethics, so as to achieve better man-machine synergy effect. From the regulatory level of the news industry, news organizations should strengthen industry technical self-discipline and news ethics norms. Relevant state departments should formulate detailed laws and regulations, update and adjust them in time, continue to supervise and evaluate, and use artificial intelligence technology legally and compliance within the framework of the legal system to prevent risks and uncertainties brought by artificial intelligence technology. In the era of intelligent media, AIGC generative artificial intelligence is a double-edged sword. While improving the production efficiency of news professionals, it also makes them face a role crisis. In this context, it is necessary to correctly understand and properly control AIGC generative artificial intelligence technology, balance the symbiotic integration relationship between AIGC and the news industry, reduce the negative sum game effect brought by artificial intelligence to the news industry as much as possible, and realize the Pareto optimum of human-machine game. It is the only way that artificial intelligence technology can better empower the innovation and development of journalism.

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