

A Study on the Application of Chat-GPT in Media Production and Communication

Xinyi Xu^{1,a,*}

¹Jinqiu International School, Hangzhou, Zhejiang, 310007, China

a. 2071797323@qq.com

*corresponding author

Abstract: In the 21st century, with the rapid development of Internet technology, people's ways and attitudes of transmitting information are changing every minute, and the media environment is also changing rapidly. Among the technologies that have greatly changed the media environment in recent years, Chat-GPT is the first to bear the brunt. It can understand and automatically generate languages, have real-time interactive dialogues with users, and constantly improve the answers. Its participation in the field of media content production and dissemination is constantly expanding. Its participation in the field of media content production and dissemination is constantly expanding. However, while using it, people also have a sense of crisis. Whether Chat-GPT will replace "media people" has become a hot topic. This paper will explore the background and function of Chat-GPT, make a comparative analysis of its shortcomings compared with human beings, sum up a new mode of human-computer cooperation in which human beings and Chat-GPT jointly participate in the production and dissemination of media content, and elaborate on the application scenarios and possible risk challenges of this mode, as well as the practical changes to the media environment.

Keywords: Chat-GPT media environment, media content production, and communication, man-machine cooperation

1. Introduction

Remarkable research progress has been made in the field of man-machine cooperation. In the medical field, the cooperation between foreigners and computers is expected to bring important breakthroughs in the fields of surgical operation, rehabilitation nursing, and telemedicine. For example, robots can be used as an auxiliary tool to complete operations with surgeons and provide more accurate treatment results. In addition, robots can also be used for patient monitoring and data recording, which can effectively support telemedicine services.

However, there are still some unsolved research problems in the field of man-machine cooperation. First of all, the existing human-computer interaction has not been fully understood. Including the vague inference of human actions, intentions, and emotions, relevant laws and regulations need to be established to provide a suitable legal framework and ethical standards for human-computer cooperation. The theme of this paper focuses on the background, characteristics, current situation analysis, and future participation mode of Chat-GPT in media production and communication.

It is of great significance to study the application of artificial intelligence in media production and communication. It promotes technological innovation, improves content quality and efficiency, promotes user interaction and personalized experience, solves industry challenges, and realizes an intelligent and sustainable media ecosystem.

2. The Reasons for the Rise of Chat-GPT in the Production and Dissemination of Media Content

2.1. The Foundation for the Development of Artificial Intelligence Technology

Chat-GPT originated from GPT-1, a neural network model for natural language processing released in June 2018. Admittedly, this is a great leap in the field of artificial intelligence. However, due to technical problems, GPT-1's performance in complex dialogue tasks is not satisfactory, and there are many deviations in the accuracy of prediction results. In the end, it has not formed a great influence in the world, and it is even more difficult to set foot in the field of media, which has obvious human characteristics.

The GPT series did not stop there. In the update of generation after generation, Chat-GPT, a master based on GPT-3, stood out with its excellent interactivity, persistence, and feedback optimization, which promoted the development of artificial intelligence like a rocket and made many unprecedented human-computer cooperation modes come true.

Based on artificial intelligence technology, through huge and efficient learning, calculation, and feedback, Chat-GPT gradually acquires more human characteristics and naturally enters the media field.

2.2. The Disadvantages of the Existing Media Environment Provide Thrust

The first greeting when something new comes on stage is often the death knell of something old. Chat-GPT can enter the media field almost unimpeded and make drastic changes to the media environment without fear and fanfare, and the existing media environment is hard to blame. The existing media environment has the following shortcomings.

The first is the question of authenticity. Andy Warhol said, "In this era, everyone can be famous for 15 minutes". As early as the early 21st century, with the development of the Internet, the release of media content changed from traditional PGC to PGC with high user participation. This change has decentralized the right to know, access, and expression given by the media indefinitely and undoubtedly abandoned the authenticity and authority of a great part of the media content, making the current media environment full of a lot of false information. This media environment helps AIGC, led by Chat-GPT, enter the media field quickly. The second is the issue of capital intervention. "The world is bustling, all for the benefit." Today, with the proliferation of media, most media have become the mouthpiece of capital. Sponsorship in exchange for advertising and money to block exposure happens from time to time. It seems that no matter how influential the events reported by the media are, they can be skillfully resolved by capital-driven public relations companies. The media environment controlled by capital promotes fairer Chat-GPT to enter the media field.

3. The Positive Role of Chat-GPT in the Production and Dissemination of Media Content

3.1. The Positive Role of Media Production and Communication

Long ago, mankind mastered the true meaning of communication, that is, the transmission of information. At first, characters were carved on tortoise shells and written on bamboo slips. Later,

the invention of paper and pen brought communication into a brand-new field, and the efficiency of information transmission was improved unprecedentedly. In the information age, with the development of new technology, media information becomes electromagnetic signals and lines of code. Due to the continuous upgrading of information carriers, the efficiency of media information production is gradually improving.

However, the appearance of Chat-GPT completely broke this pattern and turned its attention away from the information carrier and toward the disseminator and receiver. Let AI produce news completely automatically and adjust its further actions through the feedback obtained, which optimizes the problems of long, time-consuming processes and many mistakes in the processes of human workers to a certain extent. Throughout the development of media communication, the communication accuracy of media content has experienced a high-low-high change.

At first, the content of the media was strictly divided into classes. Newspapers, mansion newspapers, and other information were often only provided to the ruling class or the bourgeoisie with higher social status, and the information in them was often used by them, which played a great role in them. The communication accuracy at this stage is high.

With the empowerment of the media, the relevant power of the media is continuously decentralized, and the class threshold of media content is continuously lowered. A newspaper that can be bought for a few cents covers the major events in the world. However, because information is pushed to people of all classes without classification, the utilization rate of media information is greatly reduced, resulting in a great decline in the accuracy of media content dissemination.

Nowadays, with the development of technologies such as user portraits, the accuracy of media content dissemination has steadily increased. The appearance of Chat-GPT makes the portrait of users in media communication reach an unprecedented truth and clarity through more comprehensive and massive information collection and calculation, which greatly improves the accuracy of media content communication.

3.2. The Positive Role of Social Level

In May 2022, the China Municipal Government officially issued the Opinions on Promoting the Implementation of the National Cultural Digitization Strategy, requiring all walks of life to steadily implement the national cultural digitalization strategy. The media industry has a lot of information and a high social influence, so it should be the leader of this strategy and lead its specific implementation.

In this respect, Chat-GPT has unique advantages. It can not only collect a large amount of information quickly and efficiently by talking with users, but also organize, calculate, and output a large amount of information efficiently and accurately.

3.3. Change the Positive Role of the Media Environment

As the basic element of news, authenticity is not only the insurmountable red line of the news industry but also the law that media content dissemination must abide by in the whole human society. Today, with a lot of false information, the appearance of Chat-GPT undoubtedly brings good medicine to the dross media environment.

The amount of information collected by Chat-GPT and its ability to analyze and calculate this information far exceeds that of a human brain and any previous system for information collection. This makes the authenticity of information an unprecedented promotion so that false information has nowhere to hide.

In the history of the Internet in human society, the form of network communication has evolved from the era of passive acceptance of information to the era of two-way transmission of information

and has gradually upgraded to the era of highly decentralized, open, and intelligent information. In this process, network communication is constantly breaking the original highly “centralized” communication pattern and constantly “decentralizing”.

The appearance of Chat-GPT has raised the speed of “decentralization” to a higher level. The input, analysis, and output of a large number of complex information greatly promote the decentralization, openness, and intelligence of media information. In this way, decentralization weakens the main body of communication and accelerates the transformation from Web 2.0 to Web 3.0.

4. The Negative Role of Chat-GPT in the Process of Media Content Production and Communication Compared with Human Beings

There are a series of pain points in the field of media production and communication, including the lack of innovation in content and form, which leads to the problem of homogenization [1]. The public opinion control and coping mechanism in the process of communication lacks human touch, which disturbs the authenticity and credibility of information; In addition, the wide application of artificial intelligence technology may have an impact on the labor market and cause social panic. Therefore, it is of great significance to study the application of artificial intelligence in the media industry, which has the potential to promote technological innovation, enhance user experience, and solve industry challenges. At the same time, we need to pay attention to the adaptation and transformation of the existing labor structure under its influence. This research direction will provide new ideas for the transformation and sustainable development of the media industry.

Chat-GPT has an excellent ability to complete tasks, but it is extremely difficult to have highly developed innovation ability. The system simply imitates and learns from human society, to work, and few innovations can be formed.

The media information produced by Chat-GPT, which lacks innovation ability, is bound to appear as serious homogenization [1]. The media industry makes people face it. When people lose interest in this information, its value will diminish.

Throughout the history of media, from words to electronic signals, from two-dimensional to three-dimensional, every innovation in the media industry has been completed by human beings through their brains, including the manufacture of Chat-GPT. In terms of innovation, Chat-GPT has a natural disadvantage [2].

In the aspect of public opinion communication, although Chat-GPT can accurately collect and analyze information, it can only rely on a lot of experience and feedback in response. This will make it completely abandon the worldly wisdom lose the original human touch in response to public opinion, and make decisions only from the perspective of maximizing interests. Although the public opinion environment formed in this way can avoid group polarization to a certain extent, the probability that public demands are ignored is enlarged, which will cause the credibility of the media to decline and the social status of media information will no longer exist.

The emergence of Chat-GPT greatly improves the efficiency of the production and dissemination of media information, which can save a lot of labor costs in the media industry, but it will also reduce a large number of jobs in this industry, causing certain social panic [3]. Since ancient times, media workers have enjoyed high social status because of their unique social supervision responsibilities. The reduction of jobs caused by Chat-GPT will not only create psychological gaps for old media people but also discourage new media people. Over time, the panic in the industry will also spread to society and destroy the order of normal life.

5. A New Model of Multi-role Participation in the Production and Dissemination of Media Content

5.1. The Idea of the Division of Labor Model

The relationship between human beings and Chat-GPT should not be competitive, but cooperative, at least in the media field. Specifically from the following aspects.

First of all, the two need cooperation. First, for Chat-GPT, a large number of human writing samples are needed to change the serious problem of homogenization of production media content, and constantly update the media content and form. Second, Chat-GPT can provide information collection and preliminary analysis for the production and dissemination of human media content, thus improving the level and efficiency of human production and dissemination. Thirdly, the highly repetitive media information can be produced by Chat-GPT, and reviewed and fed back by human beings to improve the efficiency of media content production and dissemination.

Secondly, they have their special fields. For human beings, the production and dissemination of media content involving humanistic care and worldly wisdom is their specialty. For Chat-GPT, automation, cross-language, and other special media content production and dissemination is its specialty [4]. In these areas. They will complete the work independently.

5.2. Risks and Challenges Faced

This model can greatly improve the efficiency of media content production and dissemination, but it also faces many risks and challenges. First of all, this model puts forward higher requirements for media industry practitioners, requiring them to have the ability to train and use Chat-GPT, which will change the education and work system of the media industry. Secondly, because this mode uses Internet technology to operate, the possibility of loopholes and attacks is greatly improved, and security needs to be improved. Moreover, this model requires media organizations to have more advanced hardware facilities, which on the other hand improves the entry threshold of the media industry, and the degree of public acceptance is unknown.

6. Conclusion

To sum up, there is still a long way to go for the new mode of human beings and Chat-GPT to participate in the production and dissemination of media content. Research on the participation of humans and artificial intelligence in the production and dissemination of media content is of great significance for promoting technological innovation and improving the user experience. The following aspects can be realized, such as personalized content production: artificial intelligence can provide personalized content recommendations and customized media products for users according to their interests and needs [5]. This will increase user engagement and improve the user experience. Monitoring and handling of public opinion: Artificial intelligence can help monitor, analyze, and dig public opinion on social media, to deal with negative information and deal with false news in time [6].

However, the participation of artificial intelligence in the production and dissemination of media content also faces some challenges and problems, such as fairness of the algorithm, privacy protection, and employment pressure. Therefore, it is extremely important to deeply study and discuss the fairness of human and artificial intelligence participating in the media field and algorithms to promote the sustainable development of the media industry.

References

- [1] Cai Yuxuan. (2017). *Homogeneous communication and “individual survival” of media* (Master's degree thesis, Jilin University). https://kns.cnki.net/kcms2/article/abstract?v=rNTUGOLzFSHTTcaFrprCxMKDSxKri5-8WUTEbY7ZGEg-j2UT9mAU_sd5EzcWNU2mLwMyL8Va_WOOX_AMQLNzNGS6lB0sPtDbMyABQrWvOHRHLRXWqU8GeVjIXleD6_zKyzZGY_BNGAE=&uniplatform=NZKPT&language=CHS
- [2] Ni Hongyu. (2006). *From 2D to 3D from Drawing to Design*. *CAD/CAM and Manufacturing Informatization* (08),56-59.
- [3] Yang Xiaoyan & Liao Qingyuan. (2021). *Research on the Application of Artificial Intelligence in Financial Accounting Industry*. *China Management Informatization* (06),66-67.
- [4] Meng Wen-chu. (2020). *The role of artificial intelligence and automation in business*. *Computers and networks* (19),45.
- [5] Gao Linqi. (2023). *Application Mode of Generative Artificial Intelligence in Personalized Learning*. *Journal of Tianjin Normal University (Basic Education Edition)* (04),36-40.
- [6] Zhaoqiang Peng,Jianan Jian,HongQiao Wen... & Kevin P. Chen.(2019).Fiber-optical distributed acoustic sensing signal enhancements using ultrafast laser and artificial intelligence for human movement detection and pipeline monitoring..(eds.)OPTO(pp.).SPIE.