

# Research on How the U.S. Artificial Intelligence Expands the Chinese Media Market

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## ABSTRACT

Technological change drives industrial change is the driver of industry innovation and is the unchanging law of development. The United States has been in a robust innovation ecosystem, walking in the pioneer port in the field of artificial intelligence, and its cognitive and strategic position has been firmly at the forefront of the world. The role and function of the media give it the presence of monitoring the social environment, coordinating social relations, passing on culture, providing entertainment, educating the public, delivering information, and guiding the values of the masses. Hence, the impact of artificial intelligence, the weight of its use in the media, is broad and far-reaching. Taking China and the United States as two world economic systems as models, this paper actively discusses the layout and application of the development of artificial intelligence in the media in the United States, summarizes its essence and advantages, and deeply explores how to better develop, expand and integrate Chinese media. This paper finds that due to the differences between China and the United States in institutional mechanisms, audience habits, cultural beliefs and communication methods, we should better integrate resources, narrow the differences, effectively localize and deepen the development of artificial intelligence. Due to the lack of relevant research, this paper will be beneficial to explore the research of artificial intelligence media in China and the United States, and provide some basic viewpoints for the research in this field.

**Keywords:** Artificial Intelligence, Media Market, China, the United States

## 1. INTRODUCTION

With the rapid development of digital technology and artificial intelligence, great changes have taken place in the media environment of China and the United States. Artificial intelligence has been widely used in traditional media and social media in the United States, including artificial intelligence automatic writing, automatic video editing, artificial intelligence robot chat, news hotspot analysis, comment screening and many other aspects. The core purpose of media AI is to improve the efficiency of media communication, pay attention to the supervision of public opinion and reduce the occurrence of crisis [1].

In 2017, the Associated Press entered into a strategic partnership with Wibbitz, an automated video creation company that provides technical support for automated

video generation. The Wibbitz platform can automatically transform plain text into a video with subtitles, background music, and other elements without human intervention. The entire process takes only a few tens of seconds. In addition, the Wibbitz platform allows for cross-language conversion. The automated video clip generation platform offers the same quality as manual editing, saving human resources and improving video output [2]. Wibbitz, an automated video production company, provides automated video generation technology and has partnered with Fox Sports, USA Today, and many other media outlets after the Associated Press [3]. Wibbitz creates platform-appropriate topics for Fox Sports to increase video production rates by publishing 10 - 20 videos per day through Wibbitz. In addition, Fox Sports has applied Wibbitz to real-time coverage of sporting events, using

Wibitz to create a sports picture in 10 seconds. In addition, Wibitz provides video production for more than 50 brands under the USA Today umbrella. Using Wibitz buys time for the first coverage of each local game, as it only takes 10 to 15 minutes for a topic to be identified or for a news event to appear as a video on the site. In addition, USA Today staffers, including brands such as Big Lead and Hoops Hype, can reuse video content for distribution to different sites and platforms, saving time and increasing efficiency [4].

Artificial intelligence for analysis and prediction is a technological battle against time. Artificial intelligence is used to handle the repetitive work of tracking and analyzing media coverage and predicting hot events from it, as represented by real-time media monitoring platforms NewsWhip and SAM. Real-Time Media Monitoring (RTMM) tracks events, mentions, and narratives across the digital media ecosystem, detecting and quantifying content as it emerges and providing end-users with instant, valuable insights. In the media industry, editors and journalists can use the platform to warn of upcoming events on social media and understand user interests in real-time. NewsWhip's real-time media monitoring platform can predict critical events and topics for the next few hours. In addition, The Washington Post and other media outlets are using Modbot, an automated comment review system, to filter comments that require review and remove comments that do not comply with discussion board policies.

Applying AI in analytics and forecasting helps media outlets better understand what users want and deliver targeted content. First, the Spike display board allows us to understand trending topics and respond quickly. Second, we worked with NewsWhip to develop a new 'syndication' tool that tracks the use of AP news content and analyzes how it drives social interactions among our members and customers, which helps us tailor content to meet future information needs [5][6].

AI helps media workers with comment processing and increases their productivity. With nearly every article open for discussion, Washington Post moderators need to manage many comments each day. The technology will help create a healthier comment section and make it easier for journalists to find and interact with the best commenters. In addition, ModBot's dashboard displays news at a high deletion rate so that human reviewers can scrutinize comments and move to the review stage if necessary [7].

At present, Chinese media are actively committed to the popularization and publicity of artificial intelligence. In a study on artificial intelligence in Chinese media, we found that artificial intelligence technology has been applied to various business processes. New products and applications have emerged as a spring. Xinhua Intelligent Cloud launched "Media Brain 3.0" content risk control based on image, text, video. It covers a

multimodal understanding of face verification, political sensitivity, weapons, etc., for in-depth analysis to ensure the "security" of output content. However, the Chinese media market is more focused on the publicity and popularization effect for the intelligent use of artificial intelligence. They shape the image of role model class AI and cultivate user acceptance habits. CCTV General's guidelines take 5G + 4K8K + AI as the critical point in Chinese media, advocating mobile-first, network-first, and back-end. With the network side as the priority, the TV side is put in the second position. AI technology is tilted towards the new media side, and the new media is used as the port of output. It is worth mentioning that AI choreography is able to establish an accumulation mechanism, whose vocabulary, utterance, emotional logic, and language manner can reach qualitative improvement through the accumulation of quantity. The cultural heritage and entertainment function go hand in hand, using sentiment to immerse the mind. Culture is passed on because of the development and creation of artificial intelligence, giving us more possibilities to explore space. It is a tool to enhance work efficiency and a role model shaper, cultural inheritor, and a continuer of feelings.

It is not difficult to find that doing excellent propaganda and cultural science popularization in the Chinese market and enhancing users' knowledge of AI is good medicine for dealing with differentiation. Secondly, strengthening the stickiness of users' use of AI and developing the possibility space of users' emotional subconscious are the pillars of great localization. Thirdly, building a firm foundation of humanistic sentiment and fun is the most important thing to take root in the Chinese media market [8][9].

Through the above combing, it can be found that there are significant differences between the media environment in China and the United States. This paper hopes to explore how the advanced products and technical concepts of artificial intelligence in the United States can be better promoted and rooted in the Chinese media market. This paper will introduce AI's concerns in the media markets of China and the United States in detail, as well as the distribution of AI's concerns in the media industries of the two countries, so as to fully explain how to solve the differences and integration.

## 2. METHOD

This paper adopted a combination of quantitative and qualitative research methods. Although the development and research of artificial intelligence in the two world-classes economies, China and the United States, has been well established, the media industry is still representing as an emerging industry. In this study, considering the lack and uncertainty of industry information, we adopted the data provided by a professional data company, which collected and

analyzed the use of artificial intelligence in American media in detail. In addition, this study also refers to a large number of documents about China and the United States to draw research experience.

This study also established an open-ended interview outline and questionnaire to collect the actual use of AI by front-line personnel in China's media industry, and to investigate the public's cognition and acceptance of AI. Of course, one possible limitation is that the scope of sampling survey is not enough. This study makes statistics on the information of 101 respondents, including factors such as age, occupation, educational background, city and gender (as shown in Table 1), and obtains relevant data on the public's acceptance and cognition of emerging things through them.

**Table 1** Chinese people's awareness of emerging matter

Item	Classification	Quantity
Profession	Student	23
	Skilled worker	4
	Middle Class	59
	Other(Retired, unemployed, freelance)	15
Age	Under 18	12
	18-23	23
	23-35	43
	36-48	13
	49-60	9
	Over 60	1
Gender	Male	36
	Female	65
Cities	Metropolis	30
	Tier 1	28
	Tier 2	24
	Tier 3	17
	Oversea	2
Education	High school and below	23

	Junior college	17
	Undergraduate	49
	Postgraduate and above	12

### 3. RESULTS AND DISCUSSION

#### 3.1. Basic data analysis of media artificial intelligence

##### 3.1.1. Media artificial intelligence in U.S.

This paper collected and arranged the artificial intelligence application products of major media in the United States. See the following for details.

Associated Press. In 2014, cooperated with AutomatedInsight to start the automated writing of financial report news and sports news using the Wordsmith platform. In 2016, cooperated with Graphiq Technology Company to create a database of news information such as economy, entertainment, sports, etc., to realize the intelligence and graphization of news data. In 2017, the Associated Press reached a strategic cooperation with Wibbitz, which provided technical support for automatic video generation. Cooperate with a number of artificial intelligence start-ups and introduce hot spot tracking and forecasting tools NewsWhip, SAM, etc., to track and warn hot spot emergencies on social media. Independent research and development of chat robots, giving them news editing and screening functions, and interacting with the audience through professional algorithms, understanding the needs of the audience during the interaction process, and completing the news push.

The Washington Post. In 2012, the Washington Post launched the truth teller fact-checking project, and officially launched the fact-checking application truth teller in 2013. In 2016, self-developed robot Heliograf, reporting on the 2016 Rio Olympics and the U.S. election. Develop automatic comment review system Modbot.

CNN. Settled in Facebook Messenger and developed chatbots.

Reuters. Develop the News Tracer system, use algorithms to filter 500 million new tweets on Twitter every day, remove advertisements, rumors, phishing and other information from them, and filter out real information. Launched plain text web browser insight system (Lynx Insight). Cooperate with technology companies such as Graphiq and NewsWhip to introduce databases and hotspot tracking and forecasting tools.

New York Times. In 2015, The New York Times implemented an experimental artificial intelligence project called "Editor" to simplify the news production process. Self-developed Blossomblot robot, by analyzing the massive articles pushed by social platforms, predicting articles suitable for promotion on social media platforms.

Facebook. Identification and deletion of illegal content, identification of unmarked pictures, in-depth text understanding, suicide prevention tools, chat bots, etc.

Twitter. Hate speech recognition and deletion, algorithm recommendation, grammar monitoring, etc.

Based on the AI products of the above main media platforms, this paper further combs the main tools commonly used in American media AI, as shown in Table 2.

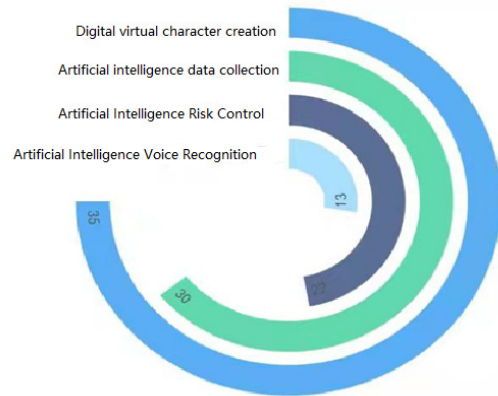
**Table 2** U.S. media artificial intelligence analysis, prediction and comment processing tool

Product	Company	Midea Applied	Function description
NewsWhip	NewsWhip	The Associated Press, Reuters, The Washington Post, NowThis News, etc.	Tracking and predicting the direction of social media hotspots
SAM	SAM	The Associated Press	Discover, review and verify social media content for news media production
Modbot	The Washington	The Washington	Filter comments

	on Post	n Post	that need to be reviewed and delete comments that do not comply with the discussion board policy
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### 3.1.2. Media artificial intelligence in China

Figure 1 shows the main focus of Chinese media AI, relying on the relevant data of public interviews conducted by front-line media workers.



**Figure 1** Chinese media artificial intelligence media focuses on situations and concerns

Therefore, we can preliminarily summarize several main characteristics of media artificial intelligence. First, in terms of market share, in the 5g era, new media is more convenient, faster and more interactive, and audiences have a relatively high degree of acceptance and awareness of new media. Second, audiences are in recognition of artificial intelligence technology. Knowledge is relatively vague; third, the use of more vivid digital virtual character image presentation methods can better popularize and promote artificial intelligence.

### 3.2. The impact of artificial intelligence on the media ecology

#### 3.2.1. Artificial intelligence simplifies business processes and improves work efficiency

Artificial intelligence technology has been widely used in information collection, production, review, distribution and other aspects to improve work

efficiency and simplify work processes. In comparison, traditional news production requires a lot of manpower and material resources from interviewing, editing, reviewing, distributing, and evaluating. However, with the development and application of artificial intelligence technologies such as machine learning, language technology, voice technology, machine vision, and robotics technology, in terms of information collection, artificial intelligence technology has achieved automatic and instant information collection through voice recognition, image recognition, and video processing has increased the speed of information collection; In terms of content writing, the emergence of manuscript writing robots realized manuscript writing automation, which has greatly improved the efficiency of content production and reduced the error rate; in terms of content distribution, artificial intelligence could collect user information in the media Related information such as behaviors, interests, and location on the Internet. It could form and optimize user portraits, and provides accurate and intelligent content push services; in addition, content review and monitoring are gradually moving towards real-time transformation, saving manpower and greatly improving work efficiency.

### *3.2.2. Artificial intelligence changes the media production model and organizational structure*

Artificial intelligence changes and breaks through the old news production methods and the entire production chain in the media industry. Among them, early warning technology and knowledge graphs have broadened the channels of data sources, the news tracking system has maintained the full dynamic monitoring of news events, the field of automated news has accelerated, the automated production of data visualization, and various products of artificial intelligence are used in news gathering and editing. The utilization and integration of verification, monitoring, interaction, push, evaluation, etc., artificial intelligence technology has deeply embedded and reshaped the production model of the media industry. In addition, the application of artificial intelligence has changed the identity of news producers such as reporters and editors. The power of news distribution has also been transferred from media organizations to algorithm platforms, and from humans to artificial intelligence. The professional role of journalists has begun to change. Single-skilled journalists have been replaced by all-media journalists. At the same time, the number of editorial posts is rising compared to the number of journalists replaced by artificial intelligence, which has also changed the personnel structure of the editorial office. Artificial intelligence reshapes the organization of the media industry. For example, in August 2016, Facebook disbanded the team responsible for "Trending" and changed to use artificial intelligence algorithms to capture data. Through the analysis of user

searches and browsing, it sorts popular search terms and captures popular topics. The topic is presented to the audience.

### *3.2.3. Artificial intelligence brings challenges to news value and law*

While the development of artificial intelligence improves production efficiency, it also brings many challenges in media value and law. As artificial intelligence tracks users through operations such as data analysis and comparison, it brings risks to users' information security and privacy. In addition, in the media industry where artificial intelligence technology is widely used, robot writing completely relies on data and algorithms, ignoring human emotional needs. Artificial intelligence technology cannot replace the role of humans in value judgment and ethical review. Over-intelligence can easily lead to the lack of emotion and the absence of ethical control. In addition, the application of algorithms in information distribution caters to human preferences and achieves more accurate information distribution. At the same time, it also brings problems such as "information cocoon room" and "algorithm manipulation" [10], which also makes the ethical issues in artificial intelligence applications gradually highlighted Issues such as whether the data obtained by the platform infringes personal privacy and whether algorithm recommendations will cause bias. Those issues have become topics of concern in the industry and academia. What's more, as the integration of artificial intelligence and media continues to deepen, from text news to video news, works produced and created by artificial intelligence continue to emerge, posing new challenges to the current copyright system.

## **4. CONCLUSION**

This paper attempts to propose a solution for the expansion and integration of U.S. A.I. in the Chinese media context, narrowing the differences between the two countries due to various factors and developing localized measures to develop A.I. applications for the Chinese media market. This paper finds that the U.S. media focus on using A.I. to create a simpler and faster media work environment, reduce human resource costs and improve work efficiency. In contrast, the Chinese media focus on using A.I. to capture emotions, pass on sentiments, shape the power of role models, and hit users' hearts. Our research results make assumptions and analyses on the differences in the use and better integration between the two economies. The giant companies of U.S. media, such as Amazon, Meta, etc., are in a dominant position in the U.S., but have been in the Chinese market for several years but have repeatedly hit the wall. At present, the critical factor that can solve its dilemma in practice and enhance the market share of U.S. A.I. in the Chinese media is to expand the

awareness of the target users' interest points. Cultivate their habits, occupy their use time, occupy their psychological dependence, and cooperate with local enterprises to expand the brand image and overall scale in China. Of course, smoothly or not, the impact of policy factors should also be considered. In the future, with the development of scientific and technological innovation power, artificial intelligence is not only limited to replacing artificial people to do some repetitive mechanical work, maybe more potent into the human work life and social circle, the realization of virtual community office, the use of digital code instead of real life. A virtual A.I. universe will create larger, more stable, and more uniform systems. However, a profound question people should consider is how to manage the operation in this cosmic, and who is the first hand and the master between human and artificial intelligence.

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