

Humble Opinions on the Irreplaceability of Real Hosts in the Era of Artificial Intelligence

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Abstract: *In the 21st century, the rapid development of the network era, the widespread use of artificial intelligence technology, especially the participation of AI hosts in various aspects of the field of broadcasting, people began to worry. This paper first reviews the development of artificial intelligence technology, and analyzes the technical relationship between artificial intelligence technology in broadcasting. Also, it analyzes the widespread use of AI hosts in various fields of broadcasting, and draws the advantages of AI hosts and the irreplaceability of real hosts. How real hosts should strengthen their own advantages in the future and correctly view the two sides of the artificial intelligence era.*

Keywords: *Artificial Intelligence, AI Hosts, Broadcasting and Hosting*

1. Introduction

As mankind enters the 21st century, network technology is developing at a rapid pace, and science and technology are progressing at an unimaginable speed. The development of technology is changing the whole communication environment and also influencing our lives in a subtle way. The emergence of artificial intelligence (AI) technology is like an unstoppable dark horse, quickly bringing a great impact on society as a whole. The advent of AI hosts has also dealt an unprecedented blow to the broadcast host industry. Then, can AI technology in the broadcast host industry completely replace the real hosts? How should real hosts in the era of full media respond it? This is a question we should ponder^[1].

2. Artificial intelligence and broadcasting

2.1 Concepts and technology application

2.1.1. Concept of artificial intelligence

Artificial Intelligence (AI) refers to the artificial intelligence of computer systems created by humans. It is based on electronic computer, using various means to make the electronic computer imitate the human consciousness, the thinking process of the human brain. Thus, the electronic computer could have the function of thinking and operating like a human being, and be able to automatically and efficiently process a large amount of information through big data analysis according to the specific thinking logic given by people. So in some aspects, in fact, artificial intelligence is likely to exceed the human intelligence, its massive storage capacity is impossible to achieve for the human brain.

2.1.2. Technology of artificial intelligence in the field of broadcasting

In terms of basic theory, artificial intelligence is a theoretical research method used to conduct research and exploration, to imitate the expansion and development of modern human intelligence, and can also be said to be a new science of technological development of information technology and the use of information systems. In general, artificial intelligence technology is widely used in broadcasting field today, mainly involving virtual hosting, intelligent talk, robot host and new projection system and other technologies.

The advent of artificial intelligence is changing the information communication media field or the information communication pattern of the whole society at an unstoppable speed, providing people

with a completely different way of information generation and communication than before. The AI host technology, represented by artificial intelligence technology and now being used in production, has proven to be amazingly expressive in broadcasting breaking news when processing such a large amount of information data in a comprehensive manner. In addition to the efficient delivery of messages, the AI hosts also play a huge role in reducing the occurrence of emergencies.

2.2. Origin of AI hosts

The 21st century is an era of rapid development of the network, but also an era of artificial intelligence technology. The simultaneous advent of these three factors can undoubtedly be said to be a new technological revolution. Throughout the many industrial revolutions in human history, after the advent of the first industrial revolution, people began to use machines on a large scale, and machines gradually replaced the previous manual labor. The birth of the first computer was the artificial intelligence in the minds of the people at that time. After the Internet era, the way of manual labor is changing, the Internet is becoming popular, and the society has changed dramatically. The methods of production and the means of production have changed, and people have started to switch from manual labor to mental and creative labor. The times are changing and technology is advancing. People's lifestyles are also changing with the development of technology. The emergence of the mature artificial intelligence technology today, not only brings us a shock in technology, but also brings us an unprecedented impact on the psyche.

On April 19, 2001 in London, the first international virtual host appeared - Ananova. This was posted on the internet at the time by the China Press Association Media Group. As you can imagine, the birth of the first virtual host caused a big shock in the UK and even in the world in 2001. CNN described her with "the artificial intelligence that looks like a real host." The development of civilization in the world is always connected, not to mention the technology that has caused such an uproar. Soon, artificial intelligence technology began to spread in various other countries. Virtual host Yuki appeared in Japan; Vivian appeared in the United States; and Lusia was introduced in North Korea. The first TV virtual host in China was Xiao Long of "Light and Shadow Weekly", and the first virtual host in the broadcasting industry was called "Xiao Xue" in the then "930 Media Live". But in the world at that time, artificial intelligence technology is not developed, these virtual hosts have some obvious shortcomings, such as "looks very fake", "it can never replace the real human".

2.3. AI technology is becoming more and more mature and widely used in the field of broadcasting

2.3.1. The integration of AI in news broadcast programs

The Internet era is developing at a rapid pace, and technological achievements are emerging all the time. The widespread use of big data, cloud computing and artificial intelligence technologies is a distinctive sign of the smart era today[2]. The comprehensive integration of the intelligent era with the media convergence era and the all-media era is inevitably an unstoppable trend in history. AI technology in the smart era is driving the development of the field of broadcasting. It is first reflected in the newscast category. We can find that both immersive media, personalized information, machine media, sensing information, and even distributed media have been appearing in the public eye one after another. Because of the characteristics of artificial intelligence, it will effectively promote the deep integration of media in the large ecology of communication in terms of enabling news and content production.

On November 7, 2018, the world's first biosynthesis host using artificial intelligence technology appeared at the 5th Global Internet Summit. This is an AI news host created by Xinhua News Agency and Sogou, which has been cloned using cloud synthesis technology, lip synthesis technology, expression synthesis technology and deep learning technology. He is not different from the real person in appearance, and there is a well-prepared hosting system, just enter the content into the system can carry out a live stream. Moreover, the expressions and voices presented during the broadcast tend to look like real people, so if you don't pay attention to them for a long time, you won't notice the difference. He is also able to work 24 hours a day. However, all technology can not be flawless, this AI virtual host technology is still not able to achieve complete AI. Behind the stage there are technicians operating and programming staff in advance of the design planning calculations, like a real-life version of a 3D model, they can use face detection and tracking and other technologies, as far as possible to blend the real and simulated face together, to produce such a dynamic news broadcast effect.

In March 2019, China's National People's Broadcasting Corporation released the AI CCTV

reporter assistant “Xiaobai” and AI synthetic anchorwoman “Xin Xiaomeng”, which attracted widespread attention domestically and internationally during the second national meeting. The world's first 3D version of synthetic AI web host appeared at the time of the China Second Conference in 2020. This shows that synthetic AI web hosts are an important manifestation of the breakthrough innovation in AI fusion technology in the era of artificial intelligence, and also create a pioneering move in broadcasting content by combining real human voices with real AI images.

With the gradual maturity of artificial intelligence technology, AI hosts in the field of news media seems to be more popular, many media began to launch their own virtual hosts, virtual reporters. For example, Xinhua News Agency has launched an AI synthetic host, “Xin Xiaohao”. These virtual hosts are also able to interview another virtual AI in a virtual space. The AI technology is not only used for spoken communication, but also has a place in special populations. In the coverage of the Beijing Winter Olympic Games in 2022, an AI sign language program produced by CCTV and Baidu Intelligent Cloud successfully appeared, starting a new journey of providing news services for hearing-impaired users.

2.3.2. The application of AI in variety and social entertainment hosting programs

The smart media era is developing rapidly, and artificial intelligence technology is gradually improving and widely used. AI hosts are playing an increasingly important role in word processing, technical operations, post-synthesis, and voice broadcasting in the news industry. The combination of AI technology and broadcasting is providing audiences with information and a new listening experience. It is not difficult to see that AI synthesis host technology is now being used in many variety programs. The addition of AI virtual hosts in variety and entertainment programs not only increases the fun of the programs, but also increases the viewing rate for the platform. It is not difficult to predict that in the future, if this form of hosting with AI virtual hosts can really make the audience happy and let the platform get more effective communication, the AI virtual hosts in the variety and entertainment programs will become a trend[3].

In 2009, in another online variety program of Jiangsu TV, “Intelligent Create the Future”, AI synthetic host “Jiang Lailai” was introduced to join the program as an assistant host. Her cute, beautiful and sweet image captured the eyes of a large number of audiences in an instant when she talked about the latest technological development and new technological projects in China. The ratings for this program were also a hit.

For a social interactive TV program, the audience is very concerned about the host's image, voice, personality, and even professional ability and other “backstage” behavior, which is one of the factors that the audience often choose to watch a host's program. In the interactive social programs with AI virtual hosts, the virtual hosts can change their costumes and looks at will. With the progress of technology, AI synthetic hosts can also interact with the audience at any time according to the audience's reaction, increasing their interest and participation[4]. Another example is the AI host “Xiao Bing” of Dongfang TV. In the live program “Xiao Bing Shake”, she can even use cloud computing technology to collect popular Internet topics through big data analysis, analyze and observe users' comments, and interact with them in the online video, and interact with the real hosts at the program site. She can also sing, dance and write poetry.

3. Advantages of AI hosts

3.1. Advantages in working time and special space

As we all know, the most important thing for a real host is the voice. However, newscasters are limited in the amount of time they can work under the premise that they are not allowed to make any mistakes when they are highly concentrated. In 2019, Haixia and Kanghui was “absorb oxygen” in the backstage after the commentary of the National Day parade, which was on the hot search, triggering national shock. Our vocal organs should not be used for too long, otherwise they will be damaged, and then affect the normal state of our voice. For the host, it will affect the completion of the work. The AI host is different, AI host is controlled by technical staff, synthesized by the program, its main energy is electricity. As long as the power is not disconnected, the AI host will be able to keep working.

In special spaces such as natural disasters and wars, it is difficult for our real reporters and hosts to reach there. Whether the subjective factors of physical strength or the objective factors of the environment, the real host has too many difficult to do something. But the AI host is different. He is

always a virtual host without human physical perception, as long as the technology is in place, he is able to give us some special help in some special spaces.

3.2. High task completion and controllability

When hosting or broadcasting a program, the real hosts are prepared in advance, whether the script or the process. But even if they are well-prepared, sometimes there are various surprises. The happiness and sorrow of daily life and the unexpected situation at work may interfere with the normal performance of the real host in the TV program. Whether it is the real host's own reasons, or external objective reasons, these accidents are inevitable. There are often videos circulating on the Internet of hosts broadcasting accidents, and people often take pleasure in them. But for the host, the program and the platform, there is an irreversible cost. The AI host does not have to worry about these problems, because all the procedures are preset in advance, the task will be carried out in accordance with the programming. If there is a sudden accident, the technical operator can also control it in time.

3.3. Stable persona image

People often like a real host, absolutely not only because of his performance in the program, his voice, appearance, character, ability, emotional intelligence, behavior and other aspects are also the main points of the audience to examine. But people are always changing, and there will be a day when the audience does not like them. AI host is different, he can change the costume, shape, and even appearance and voice at will. As long as the AI host is remembered and loved by everyone, and the later technology is stable, it would be very possible for the host to be liked by the audience for life.

4. The real host is irreplaceable

4.1. Perception of emotion and empathy

Emotion is the bond of human relationships. However, in the era of convenient and high-speed development of the Internet, people seem to be more and more distant from each other. They socialize across a screen, seemingly harmonious and progressive, but in fact there are many people who feel lonely inside. The progress of technology has two sides, the widespread application of artificial intelligence technology, virtual image of various games, etc., which seems to showed us only a cold screen rather than a warm "real" people. The more we watch our TV shows, the more humanistic we become. People prefer to see a program host who is "flesh and blood", "grounded", "real" exist, and is like "another me in the world".

The sincere empathy is definitely the most powerful weapon to convey feelings and bring people closer together. I still remember the Wenchuan earthquake in 2008, many TV audiences were moved by the choked and warm speech of the host. To this day, it is still remembered by many audiences, and that "broadcast accident" has forever become a "special warm broadcast" in our hearts. Time passes, but the perception of empathy like that can be transmitted to everyone's heart through the host's choked and sincere broadcast.

4.2. They are real, they have the power of example

The audience often likes the real hosts because of the characteristics of them. A person who remains the same is difficult for the audience to remember for a long time, and is easily replaced. The great and precious personality of a real host will also influence the audience. Many children will be rooted in their hearts from childhood because they see the power of the host example, which the AI host can never do. Many children will grow up with a role model because they see the power of the host, which the AI host will never achieve.

4.3. Reaction to unexpected events, behavior that drives the atmosphere

This is more suitable for party hosts, as well as the hosts of live programs in the media convergence era today. Many hosts have become popular because of the way they save accidents with their high emotional quotient. This is impossible for AI hosts as they have no thoughts. At the present stage, there is still a long way to go for AI hosts to achieve the ability to respond to various unexpected scenes and interact with various audiences in an efficient and quality dialogue at any time.

5. Conclusion

Throughout history, each technological advancement has been a double-edged sword. As hosts in the age of intelligent media, the wide penetration of AI technology is indeed a question that should be thought about. Whether the host will be replaced or not in the future is a question that has no clear answer yet. But it is certain that in the short term, AI host can never replace the real host. The real host has the emotion and empathy, the ability of human thinking, the ability to react to the unexpected, which an AI host can never achieve.

But we can't be stagnant. As the host in the era of intelligent media, we should continue to strengthen our professional quality capabilities, physical ability, and strict compliance with professional norms. Whether in front of the camera or behind, we must be strict with ourselves and be able to respond to various situations at any time. Second, we also need to continue to learn new technology. There will be many opportunities for us to work hand in hand with AI in the future, knowing each other can help us to deal with it calmly. Finally, we should correctly look at the two sides of artificial intelligence, build on our strengths and avoid our weaknesses, and constantly update ourselves in order to better face the future.

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