Teaching Reform of Broadcasting and Presenter under the Background of Artificial Intelligence

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Abstract. With the continuous development of modern science and technology, artificial intelligence has entered an unprecedented period of rapid development. It is profoundly changing all social strata, and with further changes, artificial intelligence has developed rapidly. In recent years, artificial intelligence has been used in broadcasting and hosting field for many times, which has attracted the attention of domestic and foreign media. The anchor of artificial intelligence is still constantly updated and iterated, It is gradually replacing a lot of simple and highly repetitive work. The media industry and academic circles are worried whether the artificial intelligence anchor will replace the broadcasting and hosting profession? Based on this reason, under the background of artificial intelligence, this paper discusses the educational reform of broadcasting and hosting art in Colleges and universities. It is found that 54% of the students are willing to learn the second type of broadcasting and hosting subject, and act as their own, 10% of the students hold an attitude of unwillingness, and the remaining 36% are indifferent.

Keywords: Artificial Intelligence, College Education, Broadcasting and Presenter, Questionnaire Survey

1. Introduction
The major of broadcasting and hosting art in China started in the 1950s. In order to meet the needs of the media development for broadcasters and hosts at that time, the Communication University of China began to recruit the first batch of students from the broadcasting department. With the development of the times, the traditional media in the 21st century are constantly reformed and innovated. In recent years, both the traditional media represented by TV and newspapers, or the new media with network and mobile phone as the mainstream, have actively introduced new technology and means. With the great development and comprehensive application of artificial intelligence anchor, the media industry has ushered in new development opportunities, but also faces severe tests. These reasons also promote the reform of broadcasting and hosting art teaching in Colleges and universities to a certain extent.

Artificial intelligence is called "robot" in many cases, and the public seems to accept this relatively obvious name more. Jakhu once said, "it is easy to distort the content and violate the basic principles
by using artificial intelligence technology to disseminate news. At the same time, when artificial intelligence is spread, it is not the compassion of human beings. The sound is more mechanical and impossible to achieve. To achieve a good communication effect [1] Hurlburt pointed out that education occurs at a certain time, and different times of society have different educational goals; when artificial intelligence penetrates into all social strata and promotes social change, of course, this will have a new impact on the field of Education: if radio and hospitality education do not follow the development of the times, the pursuit of innovation and change will hinder the development of society. The new expectation of broadcasting and the hospitality of education seem to be the direction of education reform. Bouzegaou believes that artificial intelligence education is a new research field formed by the combination of artificial intelligence and learning science [2]. The goal of educational artificial intelligence is to create conditions for students' learning by observing and understanding the learning process. Although these professional experts and scholars have put forward some suggestions for the education system under artificial intelligence, there is no clear explanation on how to reform the education of broadcasting and hosting major in Colleges and universities. Based on the education system under the background of artificial intelligence, this paper discusses the types of anchorperson of artificial intelligence, further clarifies the characteristics of the anchor of artificial intelligence, and discusses the course arrangement of broadcasting and hosting major in Colleges and universities in China at present [3]. Finally, it can better combine the two to make better reform on the hosting art of colleges and Universities under the background of artificial intelligence.

2. Method

2.1. Features of AI Anchor
AI presenters are very popular in today's TV, radio and new media programs. The shadow of AI can be seen in news, variety shows and reality shows. Especially in news information with strict content restrictions and obvious patterning, AI has been more widely used [4]. Demis hassabis, founder of "deep thinking", is the creator of alpha dogs. He puts forward: "similar to the support given by Hubble telescope in human observation of the universe, we hope that alpha dogs can provide more help to human beings in exploring the mysteries of go." Moreover, the function of artificial intelligence is very similar to that of Hubble telescope, which can open up new ways for human beings to explore science [5].

In daily work, it is a common phenomenon that the announcer has unstable factors. For example, mistakes, missed readings and poor mental state inevitably occur in the process of live broadcast, or they can't broadcast the breaking news in time. In contrast, the artificial intelligence anchor's news broadcast is more stable, the pre-processing level of the manuscript is higher, and the phenomenon of misreading or omission can be eliminated in the broadcasting process. Moreover, the work of the artificial intelligence anchor can be broadcast anytime and anywhere without the limitation of time and space. If there is sudden news, the news release can be written quickly and accurately.

The quantity and quality of data are directly related to the authenticity of the final display content and the value of news. Therefore, creating a specific industry database of the system is the prerequisite for the AI anchor to play a role. The accurate and high-quality data in the database in line with the traditional media are captured and provided to the AI anchor as raw materials. Only in this stage successfully grasp the high quality data, can we write high-quality manuscripts in the subsequent content writing process. Artificial intelligence anchor has the ability to sum up the inherent laws of logic in a large number of disordered data, and find effective solutions to problems.

2.2. Big Data
Artificial intelligence is based on massive data from high-quality application scenarios. Compared with traditional data, big data has the characteristics of unstructured, distributed, large amount of data and large traffic. Through data collection, data storage and data analysis, big data can discover the relationship between known variables and make scientific decisions. In the field of education, with the
development of computer education, a lot of data are produced in the teaching process. Big data provides teaching means for scientific decision-making based on data and has a profound impact on education and teaching. The value of big data lies in the scientific analysis of data, as well as data extraction and intelligent decision-making based on the analysis. Well, big data owners can give full play to the advantages of big data by creating efficient models and tools on the basis of big data [6].

The combination of big data and artificial intelligence will bring new opportunities to education and teaching. Massive data is the cornerstone of mechanical intelligence. Big data effectively promotes the progress of mechanical learning and other technologies, and releases the unlimited potential of intelligent service applications. Because the way to learn people and machines is different. For example, if a child sees many cats, his mother will tell him that he is a cat. The next time he sees another cat, he will know that it is a cat, and he must teach the machine to recognize the cat. A large number of photos of cats should be provided to the machine. Therefore, big data has greatly promoted the development of artificial intelligence. The combination of big data and artificial intelligence will give full play to the advantages of big data. For example, in the process of education and teaching, there are a lot of design and teaching data. The artificial intelligence model trained based on these data can help teachers find and improve the deficiencies in teaching [7].

2.3. Training Algorithm of Artificial Intelligence

The traditional BP neural network uses the gradient descent method as the training algorithm, calculates the objective function, and modifies the gradient of threshold and weight level by layer [8]. The iterative process is as follows:

$$x^{k+1} = x^k - \eta y^k f(x^k)$$  \hspace{1cm} (1)

Where \(x^{k+1}\) is the vector composed of the weights and thresholds of all neurons in the neural network, \(\eta\) is the learning rate of the neural network, \(f(XK)\) is the objective function, \(y^k f(XK)\) is the gradient of the objective function[9].

The standard BP algorithm has slow convergence speed, low learning efficiency and easy to fall into local optimal solution. In order to solve the above problems, experts put forward the following solutions, the formula is as follows:

$$\wedge w(t) = \eta \delta_0 + \alpha \wedge w(t - 1)$$  \hspace{1cm} (2)

Where \(w(T)\) is the weight matrix, \(O\) is the output vector and \(\alpha\) is the momentum coefficient. When the momentum term is added, the algorithm can consider the adjustment direction of the previous moment in the current time adjustment. When the error roof fluctuates in a large range, it can effectively reduce the oscillation trend and improve the convergence speed[10].

3. Experiment

3.1. Data Collection Method

In the process of preliminary preparation and research, a large number of Internet literature, library journals, books and other materials are retrieved to collect and analyze the literature related to artificial intelligence technology, teaching application of artificial intelligence technology, and promotion of teaching reform by artificial intelligence technology, and analyze and interpret these documents, so as to grasp the technology, theory and research status of artificial intelligence, Analyze the changes in the theory and technical study reserve. And its impact on broadcasting and hosting, and predicts the impact of artificial intelligence on University communication and entertainment art.

3.2. Questionnaire Method

Design a questionnaire survey about the art of broadcasting and hosting in Colleges and universities, investigate the curriculum arrangement of their colleges and universities, and put forward relevant suggestions in combination with the knowledge points of artificial intelligence and the data collected.
4. Discussion

4.1. Setting of Art Courses In Colleges and Universities
For the media practitioners who host art, we interviewed 150 people in the industry, and 70 of them have professional background in broadcasting and hosting. They are engaged in different jobs in news programs, such as announcer, host, reporter, editor, producer, etc. In the questionnaire, the interviewees listed the three professional courses which are the most helpful to their current work and the least wanted to do (the names of courses in different schools are slightly different).

**Table 1.** Professional courses considered most helpful to their work by practitioners with professional background of broadcasting and hosting

| Ranking | Course name             | Reference number |
|---------|-------------------------|------------------|
| 1       | News transmission       | 25               |
| 2       | Phonation               | 20               |
| 3       | Introduction to Journalism | 10           |

Among the professional courses that the graduates of broadcasting and hosting major think are most helpful to their work, the top three courses mentioned are news broadcasting, voice production and introduction to journalism. Other courses mentioned more often include phonetics, oral expression, TV program hosting, news interview, etc. It is worth noting that the introduction to journalism is a controversial subject and has received two different evaluations from the same group. This shows that on the one hand, the news announcer and host practitioners who graduated from the major of broadcasting and hosting agree with the importance of journalism to their own work, and on the other hand, they also think that there is much room for improvement in the teaching of this course.

4.2. X University's Talent Training Program
This paper selects the talent training plan of broadcasting and hosting art major in X University, and analyzes the proportion of Ideological and political, humanities and social sciences courses in the training plan.

**Table 2.** X undergraduate training program of broadcasting and hosting art major

| category | Total credits for graduation | Elective major | General Education (Compulsory) | General Education (elective) |
|----------|-----------------------------|----------------|-------------------------------|----------------------------|
|          |                            |                | Self recognition of discipline | Social Sciences | other |
|          |                            |                | politics | other | humanities | ≥ 2 | ≥ 3 | ≥ 3 |
|          |                            |                | 10       | 15    | ≥ 2       |     |     |     |
|          | credit                     | 100            | ≥ 30     |       |           |     |     |     |
| proportion | 100%                       | 30%            | 10%      | 15%   | 2%        | 2%  | 2%  | 2%  |

From table 2, we can see that the total credits required for undergraduates majoring in this major are 100 points, including 35 credits for professional courses (including Internship and thesis), accounting for 35%; politics, English, physical education, computer and other courses are listed as compulsory courses of general education, that is, courses required to be completed by all undergraduate students in the University, with a total of 25 credits, accounting for 25% of the total academic score, The school has specially set up "general education courses", which are divided into five categories: Humanities, social sciences, mathematics and natural sciences, Chinese civilization and foreign culture, and interdisciplinary fields. Students should have at least 12 credits.

4.3. Construction of Multidisciplinary Basic Knowledge Service Platform
The existence of all kinds of knowledge forms the way that a person's knowledge cognizes the world. This includes the proportion of all kinds of knowledge, the internal relationship between them and so on. The knowledge system of students majoring in broadcasting and hosting can often determine many problems. The knowledge system we have established mainly includes: literature and linguistics, art...
and aesthetics, journalism and communication, sociology and psychology. In order to grasp the complicated communication environment, hosts and announcers need the multi angle and all-round interpretation provided by the above knowledge in judging events, organizing language and disseminating information.

![Figure 1. Students' interest in the second type of courses](image)

According to the data analysis, 54% of the students majoring in broadcasting and hosting have a strong desire to learn the second major. From the perspective of schools and departments, we should formulate reasonable training objectives and relevant systems. It is convenient for students to carry out interdisciplinary learning, and help and guide students to clarify their own interests, explore their own potential, and improve their own quality. Let the broadcasting and hosting art of the major and the second major complement each other, and jointly promote the maximization of the learning effect of this major.

4.4. Students’ Satisfaction with the Course Arrangement of Broadcasting and Hosting in Colleges and Universities

At present, the curriculum arrangement of broadcasting and hosting in Colleges and universities (different universities may have differences). 1: the courses with basic oral English as the main content are: Putonghua pronunciation, broadcasting voice, broadcasting creation basis, impromptu oral expression. The courses with oral media as the main content include: the art of program hosting, the art of TV program hosting, the reporting skills of reporters on camera, radio and television interview and writing. The courses with professional oral English as the main content are: introduction to environmental news, etc. The characteristic courses of broadcasting and hosting include: Chinese and foreign literature, music foundation, vocal music, physique, communication, journalism, performance theory and skills.
Figure 2. Students' satisfaction with the course arrangement

As can be seen from Figure 2, students' satisfaction with different courses is still very high. The improvement of social structure makes college students' self-positioning in the future more accurate. In addition to the popularity of Internet technology, now college students use the network to study. Let oneself master a special ability on the basis of comprehensive quality. Through the study of different broadcast communication courses, you can be more comfortable in interpersonal communication, and you can train yourself in the community organization and integrate into the collective life more quickly.

5. Conclusion

The development of artificial intelligence has a profound impact on the dissemination of education and the teaching practice of reception. It has changed the teacher's transmission and enthusiasm of teaching methods and students' learning methods. The new era of technological transformation education has come. In this context, the research takes artificial intelligence to promote education reform as the research topic. Based on the analysis of artificial intelligence technology, artificial intelligence teaching application, reform of teaching and related research status and related artificial intelligence theory to promote teaching reform, the importance of artificial intelligence technology and its implementation trend is self-evident. As for the teaching and research of broadcasting and hosting major, we should adhere to the idea of combining artificial intelligence with broadcasting and hosting closely, choose the right direction of creation, follow the development trend of the industry, stick to the idea of heart, and deploy the supply side reform of broadcasting and hosting specialty and industry in advance, so that the broadcasting and hosting specialty can seize the development opportunities provided by artificial intelligence, and make the whole industry achieve qualitative change, Promote the long-term and stable development of the industry. At the same time, enhance the language function and create broadcasting works with broad connotation and unique charm. Further deepen the connotation of broadcasting and hosting, and actively upgrade the internal engine of cultural demonstration and thinking innovation. It is certain that with the close combination of artificial intelligence technology and broadcasting and hosting, and artificial intelligence and media communication, it can promote greater development and progress in China's society, economy and culture.

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