

# Exploration of Vocal Music Teaching Mode from the Perspective of the Age of Artificial Intelligence

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**ABSTRACT.** *The country's governance system and governance capacity have opened a new era. The national strategy of artificial intelligence has penetrated into various areas of people's livelihood and is facing many changes in the new situation. The vocal teaching model and teaching methods from the perspective of artificial intelligence have also undergone tremendous changes. New models of vocal teaching under the background of artificial intelligence, such as MOOC, mobile APP, WeChat, are emerging. They broke the traditional classroom vocal teaching model and reorganized the space-time relationship of vocal teaching. This paper analyzes the unique advantages and existing problems of the new vocal music teaching model under the background of artificial intelligence through new teaching models such as modern online MOOC, mobile APP, and WeChat, and proposes corresponding solutions. This research hopes that talents in the field of vocal music teaching can keep pace with the times, make full use of network technology to quickly optimize traditional teaching models, improve teaching efficiency, and cultivate more and more vocal talents for the country.*

**KEYWORDS:** *artificial intelligence; vocal teaching model; talent training*

## 1. Introduction

In March 2019, in the government work report of the third meeting of the Twelfth National People's Congress, Keqiang Li first proposed To accelerate the development of emerging industries, deepen the research and application of big data and artificial intelligence, cultivate new industrial clusters such as new-generation information technology, high-end equipment, biomedicine, new energy vehicles, and new materials, and strengthen the digital economy. Artificial intelligence, as its name suggests, is the integration of intelligent networks with traditional industries. The

development of artificial intelligence in 2019 has reached a whole new level. In the boom of artificial intelligence, education is already one of the addends, so the term "artificial intelligence + education" has come into being. "Artificial intelligence + education" means that everything related to teaching will be combined with artificial intelligence. Teachers teach knowledge through the Internet, students learn through the Internet, and various resources are shared on the Internet. Reality learning and online teaching complement and expand [1]. If education is done well, and it can effectively solve the problems of users, then the Internet will be perfect, and survival will be guaranteed without the Internet. If education is not done well, the Internet may accelerate its extinction. The continuous development and deepening of "artificial intelligence + education" has made education from closed to open. As far as vocal music teachers are concerned, we must quickly transform "artificial intelligence + education" into the form of "education + artificial intelligence" in order to continue the healthy development of the vocal teaching model [2].

So far, the Internet is ubiquitous and has penetrated into all areas of study, work and life. With the advantages of the Internet, new teaching modes such as MOOC, mobile APP, and WeChat have emerged in the form of vocal music teaching. The related vocal music teaching practice and theoretical research have also gradually developed. Schools should make reasonable use of the vocal teaching mode under the background of artificial intelligence, enrich the content of the classroom, improve the teaching quality, analyze the new vocal teaching mode, put forward new requirements, and open up a broad road for the future development of vocal teaching.

With the progress of the society and the development of the times, the vocal teaching model and teaching methods under the background of artificial intelligence have undergone tremendous changes. This study combines vocal classroom teaching with the application of network technology, and compares and analyzes the functions and characteristics of classroom teaching and network teaching. The purpose is to deeply study the new mode of vocal music teaching, and strive to provide valuable reference for the reform and innovation of traditional vocal music teaching, especially for college vocal music teaching. Improve the efficiency of vocal music teaching and cultivate more and more vocal talents for the country.

## **2. Research methods**

### ***2.1 Literature method***

Collect related documents such as the new model of vocal music teaching by consulting China Knowledge Network and other channels, and sort out related content that can be used for reference and reference in thesis writing.

### ***2.2 Logic Analysis***

Theoretical analysis is an argumentation view derived from scientific analysis using theoretical knowledge and is the highest form of thought and behavior. This research ideologically defines things in order to decompose things into various parts, characteristics, attributes, relationships, etc., to grasp their regularity, and to use theoretical methods to analyze reasonably and make them have practical significance.

### ***2.3 Expert interview method***

Special interviews were conducted with domestic and foreign experts and scholars in vocal music teaching. The content design mainly focused on the judgment and prediction of the development trend of artificial intelligence teaching. We look forward to providing constructive opinions and suggestions for the subsequent development of this research.

## **3. Exploration of Vocal Music Teaching Mode in the Age of Artificial Intelligence**

### ***3.1 Development Trend of Vocal Music Teaching Mode in the Age of Artificial Intelligence***

Under the guidance of the strategic development policy of artificial intelligence, all walks of life have invested in the wave of innovation and development, and the education industry is no exception, making full use of the development background of artificial intelligence to continuously deepen and progress itself. The biggest advantage of artificial intelligence is that people can enjoy the unlimited information resources it provides at any time and any place. This feature has produced the "cultural logistics" phenomenon in the era of artificial intelligence vocal teaching, that is, under the influence of artificial intelligence The vocal music teaching mode circulates from its source to various regions, so that colleagues who love vocal music

can learn better vocal music teaching. Education meets artificial intelligence, which is both an opportunity and a challenge for vocal teaching. Vocal teachers should face up to difficulties, integrate the two, balance the gap between the two on the Internet and reality, and integrate the two in vocal teaching. The advantage is maximized. The humanistic spirit of traditional vocal music teaching is integrated into the vocal music teaching under the background of artificial intelligence. It participates in education with a gentle attitude and teaches students with a moist and silent education feeling.

A sense of the combination of artificial intelligence development and music education: "Music has both traditional and global characteristics. Artificial intelligence is not only a technical means, but also a natural way from life to music. On the basis of adhering to tradition and the nature of music, we are open-minded and using artificial intelligence to sow the seeds of music concepts and the future of music in the hearts of young musicians. "In this context, traditional vocal teaching must make full use of the advantages of artificial intelligence and continuously innovate its own teaching mode, so as to continuously promote the long-term progress and development of vocal teaching. The new mode of vocal music teaching under the background of artificial intelligence is mainly reflected in modern online MOOC classes, mobile APP, WeChat and so on. Modern online MOOCs, mobile APPs, WeChat, etc. have restructured the relationship between teaching models and teachers, broken the space constraints, and allowed massive vocal teaching resources to be disseminated in a timely and widespread manner.

### ***3.1.1 Overview of the Development of Vocal Music Teaching Mode***

With the rapid development of MOOC classes, it has had a broad and far-reaching impact on vocal music teaching. MOOC is the largest and most comprehensive open course in online education. In China, MOOC has become the pioneer of online education and is leading the development of online education. By studying the current situation of the development of MOOC, and examining its origin and development process, as well as its own characteristics, it is helpful for us to understand the particularity of MOOC. The development and growth of the MO mode largely reflects the shortcomings in current school education, and also provides the development direction and ideas for school education. Because of its rich resources and its open nature, MOOC is a great shock to traditional school education. Therefore, how to use

MOOC to enrich traditional school education and improve the current school education deficiency is worth us.

### ***3.1.2 Overview of the Development of Vocal Music Teaching Mode***

APP is the abbreviation of English Application, which refers to the application program of third-party smart phones. The dominant media and media in society have changed over time. Nowadays, digital technology is gradually maturing. The world has entered the stage of digital development. The core of various media and media is also based on digital technology. In the era of the information society, the emergence of APP as a new medium has completely changed the information In the traditional mode of communication, a piece of information from production to presentation is based on meeting the needs of the public to disseminate and obtain information.

### ***3.2 Analysis of Advantages and Disadvantages of Vocal Music Teaching Mode in the Age of Artificial Intelligence***

The age of media and information has brought new issues and challenges to vocal music teaching. In the context of artificial intelligence education, traditional classroom teaching models have been unable to meet and meet the diverse needs of students. In the context of the era of artificial intelligence, the introduction of vocal music classroom teaching into MOOC, mobile APP, WeChat and other teaching modes is an effective exploration to motivate students to learn and stimulate their interest in learning. In order for students to love music and vocal music from the bottom of their hearts, we need to combine advanced network technology with students' interest and enthusiasm for learning vocal music, and combine traditional teaching models with vocal teaching models under the background of artificial intelligence. Turn it into a modern teaching model. The use of modern teaching mode means to improve students' initiative to learn vocal music, so that the development of vocal music teaching has entered a new stage.

#### ***3.2.1 Conducive to the use of teaching time and space***

The most important feature of vocal teaching under the background of artificial intelligence is the autonomy of learning. Learning through network courseware and video resources, without being limited by time and space, allows excellent vocal teaching resources to be shared. The vocal teaching mode under the background of

artificial intelligence is another extension of the traditional vocal classroom in time and space, and has the following advantages: First, the online vocal teaching increases the flexibility of teaching time. Due to the particularity of the vocal music discipline, each vocal learner's voice conditions and sound characteristics are different. Students can make their own learning content and learning plans according to their own voice characteristics, and learn flexibly. At the same time, it also conducts further communication with teachers and other students in the form of online teaching through MOOC, mobile APP, WeChat, etc. If you encounter difficulties in the process of learning vocal music, you can learn through online vocal music teaching anytime, anywhere, thereby improving the flexibility of students in learning vocal music. The second is that the network vocal teaching breaks through the geographical limitations of classroom teaching. As long as you have mastered network technology, you can make network vocal music teaching anywhere. Students can arrange their own learning progress according to their actual conditions and needs at any time, and resolve the contradiction between learning and practice. Get help from professional teachers and other learners by posting messages on MOOC, mobile app, WeChat public platform, and listen to a wide range of opinions or suggestions. For example, using the WeChat vocal teaching model, teachers and students can conduct interactive learning exchanges in WeChat groups. Students can not only obtain professional information to a maximum extent, learn from various aspects of professional vocal knowledge, but also communicate through public platforms to solve their own vocal lessons. Difficulties encountered.

### ***3.2.2 Facilitate the sharing of learning resources***

In the traditional teaching model, excellent teaching resources are monopolized by well-known colleges and universities, which has caused relatively unfair education to a certain extent. If we want to share excellent educational resources, we must break the monopoly of educational resources, narrow the educational gap, and promote educational equity, so as to promote the relative fairness of excellent vocal teaching resources in the whole society [3]. The emergence of new models of vocal music teaching under the background of artificial intelligence such as MOOC, mobile APP, WeChat, etc., has narrowed this "knowledge gap" in education. It brings together a large number of excellent vocal teaching resources on the Internet, and allows more vocal enthusiasts to receive high-quality classroom education among these excellent

vocal teaching resources with zero threshold conditions. That is to say, under the background of the era of artificial intelligence, new vocal teaching models such as MOOC, mobile APP, WeChat and other excellent vocal teaching resources have been shared by the whole society. Let students in different groups and different strata earnestly benefit from online teaching resources. As a result, the educational divide was broken and excellent vocal teaching resources were popularized. Improving students' vocal singing skills and enhancing their singing skills are beyond the reach of traditional vocal classroom teaching. The new vocal teaching model under the background of artificial intelligence can not only enhance its popularity and social influence by virtue of college alliances and various network platforms, but also use social capital to deepen and develop its own courses, improve its teaching level, and continuously improve its own teachers The quality and level of the team. Therefore, the emergence of new vocal music teaching models such as MOOC, mobile APP, and WeChat under the background of artificial intelligence has achieved the sharing of excellent teaching resources and really facilitated the sharing of learning resources among different student groups.

#### **4. Specific problems in vocal teaching mode in the context of artificial intelligence**

##### ***4.1 Lack of real-time face-to-face interactivity in vocal teaching***

Due to the particularity of vocal music teaching, whether or not a student's voice is standardized needs to receive feedback and guidance in the first place in order to reflect the teaching characteristics of vocal music teaching based on aptitude. In the traditional vocal teaching model, teachers and students train and guide vocal skills and vocal works in a fixed period of time and space. In a real classroom situation, learners can concentrate and interact with the teacher in a timely manner. The improper handling of sounds or vocal works must not be handled properly and can be corrected by the teacher at any time. Teachers can also make timely assessments of their own teaching effects based on students' on-site responses, follow up with feedback information, and improve their teaching methods. This is the ideal teaching mode for both teachers and students. With the emergence of new vocal music teaching models under the background of artificial intelligence such as MOOC, mobile APP, WeChat, traditional teaching methods have been greatly challenged, and teaching has gradually changed from the same time and space to different time and space teaching

methods. Although it provides great convenience for current teaching, there are inevitably some problems.

#### ***4.2 Distorted Voices from Network Vocal Teaching Recordings***

Due to the particularity of vocal music teaching, its teaching methods relying on the simple operation of the Internet and computers are not feasible. It also needs to be completed by teachers. Vocal music is the art of sound, and its requirements on sound quality are very high. The new mode of vocal teaching under the background of artificial intelligence is generally taught via the Internet. Due to various reasons such as technology, equipment, network speed, and surrounding environment, the sound quality will be lost, and it is not guaranteed to achieve the real sound recording on site, which will affect the effect of vocal teaching. In courses such as MOOC, mobile APP, WeChat and other teaching modes, when teachers point out the problems that students have when singing and imitate their wrong singing methods, students may not be able to distinguish between "wrong singing" and correct singing in a timely manner. . This is the "teaching to students according to their aptitude" that has been mentioned in vocal music teaching. Under the premise of not knowing the specific situation of the students, it is difficult for the teacher to give correct guidance, and even to give students wrong guidance. Of course, the adjustment of pitch rhythm, teaching of students' music performance, spitting and spitting, and musical performance in teaching modes such as MOOC, mobile APP, and WeChat are still very helpful for vocal students. At present, new models of vocal music teaching under the background of artificial intelligence such as MOOC, mobile APP, and WeChat cannot completely avoid the problem of recording distortion in vocal courses.

### **5. Solutions to Vocal Music Teaching Mode in the Age of Artificial Intelligence**

#### ***5.1 Combining school platforms with face-to-face teachers***

Vocal music education has obvious subject specificity and abstractness, which makes vocal music teaching face-to-face timely communication more important than other teachings. Most of the traditional vocal teaching models are one-on-one teaching, whether it is a western college of music, a private vocal teacher, or a Chinese college of art, private vocal teaching, or all vocal arts including Chinese opera. They basically continue and adhere to this traditional vocal teaching method.

With the expansion of national arts students, there is a shortage of school teacher resources. Some of these institutions have developed corresponding teaching models based on actual conditions, such as one-to-two, one-to-three, and even one-to-many vocal teaching methods. It remains the core of the curriculum. New models of vocal music teaching under the background of artificial intelligence such as MOOC, mobile APP, WeChat, etc. It is relatively difficult to try to improve students' singing skills through simple unified teaching. Therefore, in the context of "Internet +", if you really want to innovate in network vocal teaching, you must make full use of the platform of colleges and universities to communicate face-to-face with famous teachers. Push role.

### ***5.2 Improve the recording effect with network technology***

With the rapid development of science and technology, the industrialization process of the music market has followed closely, and recording products have become the dominant in the field of music communication. On the one hand, the prevalence of various music playback software is the commercial nature of music products. It breaks through the previous model of music stored in the form of scores, is a more popular music, and forms the product of people's daily consumption. On the other hand, the recording of music is a relatively complicated project. It not only carries the memory of the sound, but also needs to reflect its artistic value. Therefore, there is a high demand for the sound engineer, and the sound engineer needs to take this more seriously jobs. At present, the technical content of electronic sound equipment is getting higher and higher, and the recording technology is also required to be improved accordingly. How to use superb recording technology to improve the recording quality, first of all, the sound engineer must be fully familiar with the entire set of recording equipment. Secondly, the sound engineer needs to have some control over the music, be familiar with the recording technology, have sufficient recording experience, and pass his own music literacy And aesthetic ability to make a second innovation in music, so as to record a perfect recording.

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