Based on the formal industry 4.0 core that information technology promotes the upgrading of all industries, Internet big data has gradually become a hot spot of social development at present. Based on it, it has been widely applied in all industries and achieved good results. Music education is aesthetic education, is one of the key to inspire people to be good and true; because China is a country of culture and music, and has a high status in the history of world music, the advanced information technology and the traditional music education promote the national music education development, the quality of education, and its significance. This paper takes the construction of the music education model in the context of Internet big data as the research object. Firstly, it summarizes the development process and status quo of the Internet, big data, and music education and points out the shortcomings of the current music education. Secondly, combined with the current situation of the modern music education, in-depth analysis of the importance of music development based on Internet big data takes the inheritance of traditional music development as an example. Then, it analyzes the application form of Internet education, the educational model changed by Internet big data, the opportunities of Internet big data education, and the model construction of future music community development. This study is a combined study of the application of advanced technology to traditional education, which contributes to the updating and iterative development of the music education model and the implementation of quality-oriented education in China and also provides reference for the application of Internet big data to the upgrading of other traditional industries.

1. Introduction

With the rapid development and engineering application of the Internet and big data, China’s social and economic development has made great progress. Music education, as an important part of traditional education, is also marked with a new brand in the development of the information age [1–4]. Digital development has brought more possibilities for the expansion of music communication methods and channel innovation and also promoted the construction of a new music education model. The International Data Corporation (IDC) will have the following big data (BD) definition: great storage volume, dynamic data system (velocity), and data-type richness (variety). It can produce real value. At present, music software is more successful in recommending music to users according to user ID browsing records, so as to strengthen the connection between users and APP. After collecting, filtering, comparing, and mining user habits, a precise music song list will be pushed to users. The algorithm can be divided into three categories: recommendation (1) based on the browsing content, (2) based on collaborative filtering, and (3) based on the knowledge recommendation algorithm [5–8].

At present, with the rapid development of the Internet and big data, the short video platforms represented by Douyin and Kuaishou have gradually fragmented and simplified music teaching. People can learn a certain music knowledge point by watching small videos online, and the platform makes intelligent recommendation based on browsing records, presenting positive feedback in the browsing process. The music education model of TikTok and other platforms enables people to have a further understanding of music education, breaking people’s stereotypes about vocal music learning [9, 10], as long as music lovers have
the opportunity to learn professional skills and systematic knowledge with resources and both sides can interact with the gossip in the comments section. Music lovers do not need to spend time or money to learn knowledge and skills in specialized institutions but can acquire relevant knowledge through video learning [11–15]. The reduction of the “We Media” platform makes the originally expensive vocal music education easier to obtain.

The music education model based on the Internet and big data greatly reduces the threshold of music learning, due to improving the music literacy of the public. We often see a wide range of content in short videos, including musicals and classic songs. At the same time, the traditional vocal music education cause has certain cultural and technical implications; music lovers can share their own learning experience by filming to get attention; the establishment of their work, in the fight for interests at the same time also obtaining income, so the mode of participating in online combined with music teaching, has become a new employment channel. [16–18].

2. Materials and Methods

2.1. The Importance of Internet + Big Data to the Inheritance of Traditional Music. Internet + big data music education has brought new vitality and employment opportunities to the traditional music education model. However, the rise of new technology requires that practitioners must have certain knowledge of the network and computer level; as the successor of the older generation of traditional music, especially that the home stay facility music by word of mouth is given priority to the older generation of artists, they do not have a new era of Internet knowledge and operation skills, so they cannot cope up with their music technology and generally cannot catch on the train of the era. Traditional music is the treasure of our folk culture. However, due to various reasons, it has not been paid attention and loved by the young generation for a long time. In addition, the impact of Western music and modern pop music makes the situation of folk music more awkward.

It is the responsibility of every Chinese to add the wings of The Times to traditional culture so as to preserve and develop our national culture. Therefore, it is necessary to integrate traditional music with The Times. Folk music culture is based on a strong cultural atmosphere; if students do not have the corresponding cultural accomplishment, it is difficult to master its spiritual connotation; enhancing cultural confidence is the key to speed up the pace of students to receive traditional culture. Secondly, based on the large Internet + data model of the word of mouth becoming ready to be accessed to learning resources, it partly solves the non-standard artists less in terms of service and teaching and with the aid of network resources to carry out the education of traditional folk music, with the help of the Internet advantage of the intelligent algorithm, the optimization of the education resources.

In traditional teaching, due to factors such as the region, language (some old artists only know dialects), and teaching skills, the inheritance of traditional music education has been greatly affected. However, relying on the new education mode of the Internet and big data, it can inherit the characteristics of music education according to needs and organize and integrate various skills and demonstration effects of artists. Form a new type of curriculum that breaks through space constraints, is easy to accept, and has a comprehensive content. At the same time, internet-based technology enables students to obtain remote guidance, customized course teaching, technology exchange, and other value-added services. By combining online and offline methods and using multimedia devices or real-time information transmission systems to obtain real-time information in the form of live broadcasting, it not only reduces learning costs but also enables more students to get vivid teaching services. At the same time, in the form of offline online activities to some extent, it can strengthen the interaction of the same kind of culture lovers and promote each other in music learning, so learning music will become no longer dry, and enjoying with friends, the so-called “walking fast alone,” also helps to pass on traditional music and make it more interesting and accessible to young people.

2.2. Application Forms of Internet Education. Because network communication lines and communication equipment connected to the Internet are becoming more and more mature, some of the most advanced Internet technology and the production of life mutual confluence have produced many new products; especially this year, with the popularization of mobile Internet technology and the wide application of smart phones, many well-known industries have been led into new life, especially in the application of music education in the Internet environment. At present, internet-based music education mainly has the following four forms: (1) microclass, (2) flipped classroom, (3) open online courses, and (4) based on mobile applications.

Microclass is different from the previous systematic teaching. It has the characteristics of a highly condensed content and short time and usually only teaches one knowledge point or demonstrates one small skill. It is to use information technology and combine video, image, and other forms of knowledge to carry out monotonous, single, and knowledge teaching organization, which is more suitable for time-trivialized situational learning, but also conducive to students according to their own professional level and technical shortcomings of targeted training, so as to effectively improve their own level. However, due to the characteristics of knowledge fragmentation in microcourses, students often find it difficult to establish systematic professional concepts and course cognition, especially for school curriculum education, which is not suitable. Therefore, microlessons are often used as a supplement to systematic courses for students to check and make up for deficiencies and improve themselves after systematic knowledge learning.

A flipped classroom inverts the roles of traditional classroom modelers as professors and students in learning, and its learning sequence and classroom teaching process are also greatly changed. Instead of teaching by teachers, the course focuses on students’ learning before class, application
and output of knowledge in class, and teachers answering questions and assisting teaching in this process. The former “teaching-learning” mode has changed into a way for teachers to interact with students to discuss and motivate students to think actively, so as to solve students’ confusion.

Massive Open Online Course (MOOC) is an online learning platform for higher education that involves a wide range of subjects. MOOCs were introduced in Asia in 2013, and similar online education platforms such as Tencent Classroom in China are now in full swing, with Coursera, Udacity, edX, and others in the US as well. By integrating social networks with educational resources and cooperating with colleges and universities, it builds a complete range of featured and high-quality course resources. It breaks through the barriers of time and space in higher education, and anyone can learn the courses of well-known universities at home and abroad through this platform, while being limited by the number of students and times of study.

Application learning based on mobile terminals has the advantages of fast information exchange, convenient use, and effective use of fragmented time. The current mainstream apps include Kulexiu, Times Art Test, Yuntu Art Study, Sound Base Class, and other multidimensional education service software covering basic music theory, online practice partner, art test, community communication, and so on. The widespread use of apps makes it easy for students to obtain learning resources, which can help improve their grades. Based on Internet technology, music education has a mature technology level, and then, further exploration is needed in the protection of intellectual property rights and commercial operation. At the same time, a large number of high-level middle-aged and elderly music educators do not understand the emerging Internet technology, so it is necessary to build adaptive programs according to the specific situation of educators and the needs of educators. Students also need to further adapt to online education, especially that being online will have more guidance advertising information and students are easy to be disturbed by the temptation of the Internet.

3. Results

3.1. Education Model Changed by Internet Big Data. There is a music education model with schools/educational institutions as the core, which usually focuses on “teacher + student learning” during school and “homework + parental supervision” during being at home, as shown in Figure 1. With the gradual development of information technology, the deficiencies of this model are becoming more and more obvious: (1) the quality of institutions and the level of teachers are mainly passed on from mouth to mouth, and it is quite accidental for students to choose teachers. Students are not clear about their learning needs, which often leads to the mismatch between teachers and students and affects the teaching and learning progress; (2) it is difficult for teachers on campus to take care of every student. Most of the off-campus institutions are part-time teachers, and many small institutions do not have the ability to systematically organize teaching research and centralized training, so it is difficult to control the teaching quality; (3) the class is dominated by teachers, students have few opportunities to communicate with teachers, and most of the practice time is completed independently or in the company of parents, which makes it difficult to effectively evaluate the effectiveness of students’ practice, resulting in low efficiency; and (4) students finish after-class exercises at home and then communicate with teachers. In this process, it is difficult for teachers to accurately plan students’ path and timely feedback of existing problems. It is even more difficult to develop targeted personalized teaching (Figure 2).

![Figure 1: Internet education and its application form.](image1)

![Figure 2: Traditional music education model.](image2)

![Figure 3: Music education model based on big data.](image3)
For music education based on Internet big data, its essence is being people oriented and letting the data run away. Based on the teachers' teaching content and students' problem feedback, big data is used to carry out intelligent matching of teachers' and students' demand information and the Internet is used to carry out real-time transmission of feature matching information and promote the communication between teaching and learning and implement individualized teaching, which is conducive to improving students' scores and high skills.

Taking the platform as the core, we invite industry experts/music masters to create segmented and phased excellent courses for students of different levels and put them on the platform for students to choose. Employ musicians or educators with certain professional qualities and teaching experience as offline guidance and supervision, and provide professional correction and reply for students' problems in the learning process. The course information, student baseline test information and offline tutor information are put in the same database. The database is updated according to the addition or evaluation of courses; students' search and update are updated according to the learning and evaluation results of the whole course, and offline tutors are updated dynamically according to professional level, number of students, student evaluation, and other factors. In the later stage, intelligent matching is carried out according to the updated dynamic database to find the most suitable courses and tutors for students, so as to ensure that students learn quickly and effectively. After students learn, the data report information will be dynamically updated and the music development and related information will be recommended to students in the later stage. Thus, even after students complete relevant courses or professional-level exams, they will still have a strong engagement with the course platform, laying a good information foundation for possible business development in the later stage (Figure 3).

3.2. Opportunities of Internet Big Data Education. Science and technology are the primary productive forces. Any technological progress and the rise of new technologies will have an impact on social life. At present, the society has entered the era of industry 4.0, namely, the use of information technology to promote industrial transformation, also known as the "intelligent era." Taking the Internet as the medium of information transmission, knowledge spreads all over the network in various forms, especially with the popularity of "We Media" represented by short videos, which makes knowledge appear fragmented and scattered. The traditional teaching form has two main characteristics: (1) standardized teaching, through setting the same teaching curriculum system and assessment standards, makes students' understanding of music and their own music style tend to be consistent and inhibits students' diversified development and personalized thinking and (2) empiricism has become the main content of teaching. Teachers arrange and test teaching tasks for students according to their own experience. Meanwhile, due to the interaction between subject and object, teachers' active experience is changed into passive acceptance (Figure 4).

The data-oriented teaching process can be realized based on the Internet big data, so that the teaching content, students' feedback, and other information can be retained, and the smooth teaching and students' growth track can be visualized. By uploading the teaching resources to the cloud, students can obtain the course data on the Internet through a PC or mobile terminal and they can learn and make targeted choices according to their needs, which makes the education resources break through the limitations of space and time and realize the real freedom of knowledge.
between teachers and students have changed, students can choose appropriate teacher courses according to their interests and needs, and teachers can arrange and make their own courses according to their interests and expertise and really concentrate on learning. Nontraditional classroom forms of teacher supervision and process tracking require students to have a good sense of self-consciousness. In the face of multistage course learning of the whole subject, learners should gradually develop the significance of autonomous learning and lifelong learning. Combining students’ learning track and test results, the platform will automatically match and recommend courses and teachers on the platform, creating personalized teaching scenes for students, truly teaching students according to their aptitude, and making teaching without classification. All of these are student-centered and people-oriented course changes. In the further development of information technology and intelligence courses, the free development of human beings will be given priority.

3.3. Pattern Construction. The new music education model, which is constructed by advanced information technology and intelligent thought, has been tested by the market and society in the process of practice and has gained more development in the process of testing. Because offline resources and the intelligent recommendation algorithm are proposed, it can combine the learner’s own interest to create customized education; it is based on the teaching data, the higher the elaborating teaching way, which requires a platform management data collection, integration, and analysis of the behavior of the learning process, based on the students to match the requirement of the driving force of the online. Take course teaching and skill improvement as the training point.

Because offline resources and intelligent recommendation algorithm are proposed, it can combine the learner’s own interest to create customized education; it is based on the teaching data, the higher level of fine teaching methods, which requires a platform management and data collection, integration, and analysis of the behavior of the learning process, based on the demand of online matches of the student’s driving force. This will greatly increase users’ engagement with each other and loyalty to the platform. As shown in Figure 5, on the one hand, various online resources are optimized, integrated, and updated in time; on the other hand, the model combining online and offline is paid attention to, so as to build adaptive learning community and make it develop continuously.

4. Conclusion

This article in the Internet age development under the background of big data, to music education pattern construction as the research object, studies the domestic and foreign music education, and the development of the Internet and big data education in music education of good example and products, combined with the traditional music education present situation, point out the traditional music education pattern and the problems of and based on big data to extract the music education of the hot spots. Finally, it discusses the application forms and existing problems of Internet education, makes clear the changes brought by Internet big data to education, clarifies the challenges of the music education model under the big data technology, and then looks forward to the construction of the music education model based on the big data of the Internet.

Music education is an important part of quality education. Good music can stimulate people’s feelings towards truth and goodness. With the continuous development of science and technology, it is of great significance to integrate advanced information and data technology into traditional music education and make music education take the ride of The Times. The addition of new elements will inevitably bring new development and progress, but at the same time, there will be “incompatibility” between the old and the new. Therefore, how to organically integrate traditional education with modern advanced technology and make it into a new organism is the music educator’s need to constantly explore. In the next step, more research will be carried out on the optimization of the music education model based on Internet big data.

Data Availability

The figures used to support the findings of this study are included in the article.

Conflicts of Interest

The author declares that there are no conflicts of interest.

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