

Exploring the Innovation of Broadcasting and Hosting Art Construction under 5G Technology Based on AI— The Case of Local Applied Universities

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Abstract: The advent of 5G will establish a robust commercial framework for the advancement of the Internet, while AI enhances 5G with novel concepts and superior performance compared to conventional methods. In the modern technological landscape, effective communication relies on the integration of media and requires individuals with a combination of exceptional skills, extensive knowledge, and specialized expertise. In China, numerous local undergraduate universities offer a major in broadcasting and hosting, which aims to develop effective communication skills. These universities generally have similar professional teaching systems, faculty structures, cultivation methods, and disciplinary frameworks. With the introduction of 5G technology, there should be a corresponding and diverse innovation in the field of professional construction. This study article focuses on the broadcasting and hosting art major at a local applied undergraduate university. It examines three key areas of professional discipline development: curriculum teaching system, faculty construction, and talent cultivation mode. This study utilizes AI-powered 5G technology to construct a hybrid flipped classroom, deploying a professional mini-course pedagogical strategy. The strategy enhances 5G-contextualized professional practices, aiming to cultivate teachers with expertise in both practical and theoretical domains. By revolutionizing traditional recruitment and training programs in the arts, the research team is dedicated to establishing a professional educational framework for broadcasting and hosting within the arts domain. Experienced educators modify the conventional hiring process by implementing a 5G intelligent talent development program to revolutionize the establishment of art programs in local applied undergraduate institutions. This is done to meet the demand for language communication experts in the era of integrated media within the new technological landscape.

1. Introduction

Following the World Internet Conference in November 2018, there was a significant reaction during the broadcast hosting session due to the introduction of virtual anchors and an AI-generated documentary called “Innovation China” that replicated the voice of voice artist Li Yi. In 2023, the AI virtual anchor technology has advanced and gained popularity. Its authenticity and interactivity have

significantly improved, presenting a stronger challenge to the traditional broadcast hosting industry [1]. The critical matter at hand is how to effectively employ 5G technology and AI to revolutionize and enhance professional education, given the advancements in AI and the rapid convergence of media. Integrating 5G and AI technologies has become crucial for enhancing classroom innovation, particularly for art majors focused on oral practice in broadcasting and hosting. Your paper will be part of the journals therefore we ask that authors follow the guidelines explained in this example, to achieve the highest quality possible.

2. Background of the Study

The broadcasting specialty was first established in 1963 at the Beijing Broadcasting University (Communication University of China). In 1988, the Ministry of Education made a professional adjustment to include broadcasting and hosting arts. Thus, the program has a history of 56 years. Currently, it is customary for domestic undergraduate institutions in China to have programs in broadcasting and hosting arts, and the enrolment figures are consistently rising. In the current era of media integration and advanced technology, there is a high demand for talented individuals who can effectively communicate in the language of the media industry. However, local undergraduate colleges and universities are not adequately meeting this demand for broadcasting and hosting art talents for several reasons. These include a lack of connection with the industry, a shortage of qualified faculty members, a lack of similarity in personnel training, and an inadequate professional curriculum system. These issues are hindering the development of the profession in local colleges and universities.

3. Main Content

In the present day, local colleges and universities are encountering the advent of the 5G age. Considering this, it is imperative to develop the broadcasting and hosting arts major creatively, given its exceptional practical nature. This paper examines three key elements of incorporating art into local applied colleges and universities: the establishment of a “5G hybrid” flipped classroom and the implementation of a professional mini-course teaching approach; the enhancement of “5G contextual” practical training and the development of proficient teachers with practical and scientific expertise; the modernization of traditional recruitment methods and the fostering of 5G intelligent talents. The concept of constructing innovative art programs in local applied colleges and universities can be explored through traditional recruitment approaches and the intelligent cultivation of talent in the context of 5G technology.

4. Discussion of Teaching Models

4.1. Broadcasting and Hosting Arts

Broadcasting, a field encompassing journalism, radio and television communication, linguistics, psychology, sociology, and other related areas, is considered a peripheral discipline [2]. As the head of the professional construction discipline at the Communication University of China, I oversee the admission and education of art majors. However, many colleges and universities fail to develop their unique curriculum structure, instead opting to simply replicate existing models. This has resulted in significant disparities in curriculum systems and educational outcomes. Aside from courses focused on voice vocalization, broadcasting creation, and radio and television broadcasting, there are also courses on improvisation oral expression, speech and elocution, work appreciation, and other related subjects. Additionally, there are courses on news and communication, literature, philosophy,

aesthetics, and other foundational subjects. However, the curriculum does not seem to be keeping up with the current times but rather appears to compete with itself [3].

Local undergraduate colleges and universities typically admit between 70 and 80 broadcasting and hosting art students each year, with some admitting over 300 or 400 students. This corresponds to a range of 2 to 8 undergraduate classes. The teaching of broadcasting and hosting art professional practice is primarily conducted through small classes, with larger classes serving as supplementary sessions. The number of students in each class and the implementation of sub-small classes vary, leading to challenges in terms of difficulty and effectiveness. Using the course "Mandarin Pronunciation and Vocalization" as an example, a class of forty individuals is divided into smaller groups of seven people, with each group having limited class time due to time-sharing arrangements. Consequently, there is a shortage of teachers, and the teaching outcomes are unsatisfactory.

4.2. Constructing a “5G Hybrid” Flipped Classroom

In the era of new media and technological advancements, applied colleges and universities must adapt to the changing times and ensure that their professional programs align with the demands of the industry. In this context, the field of broadcasting and hosting art, which focuses on vocal language expression, plays a pivotal role as the primary medium of communication in the modern era. The conventional approach to basic professional education should adapt to advancements in technology by implementing a “5G hybrid” flipped classroom model. This entails combining an online 5G platform with offline flipped classroom practice to enhance students' motivation and engagement in learning, improve teachers' instructional effectiveness, and fully integrate professional education and training. Currently, the university intranet has advanced servers with high-speed capabilities. However, these servers are not effectively utilized in the teaching process. Additionally, the networks in the campus and teaching buildings are not optimally utilized, and the network signal in the classroom is insufficient to support the new flipped classroom approach.

The advent of the 5G era has facilitated the integration of colleges and universities intranet systems with online and offline classrooms. This enables online professional teachers to record or live-stream theory classes, allowing students to repeatedly review the theoretical foundations of online knowledge points. Additionally, students can assess their understanding, sign attendance, and ask and solve questions at any time. The offline utilization of a three-dimensional platform for a flipped classroom involves the integration of a 5G classroom mobile and multimedia network platform. This allows for interactive communication between students and teachers, enabling students to actively participate in discussions while teachers provide additional explanations and reinforce learning. This approach also facilitates the evaluation of teaching and learning effectiveness, addresses the limitations of traditional teacher-led explanations in imparting fundamental theoretical knowledge, and enhances overall teaching outcomes. Artificial intelligence can facilitate professional practical training through applications like Putonghua machine test voice and mobile APP voice software. These tools enable real-time voice transmission for instant education.

The phrase “broadcast hosting” is being replaced by “audible language expression and oral communication” to reflect the expanding subject knowledge and practice orientation in the professional education of broadcasting and hosting art. Local colleges and universities should focus on adapting to county-level and higher institutions as well as new media communication institutions to train broadcasting talent. Compared to other major cities, local development has been slow, and the level of adaptation is weak. Therefore, it is crucial to speed up the construction of 5G hybrid flipped classrooms to enhance the quality of student resources and cultivate talent. Utilizing 5G technology will help establish a solid foundation in theoretical and practical professionalism, as well as in network and new media platform construction. By combining theory and practice with the

implementation of the 5G platform, we can adapt to the current era and create an environment conducive to the rapid advancement of education and teaching through the cultivation of new technological circumstances.

4.3. Developing a Tailored Mini-course Instructional Method

Professional small class refers to mandatory art courses that focus on practical skills. Large classes, on the other hand, serve as a supplementary platform for oral practice. One-on-one guidance is considered an effective method for enhancing professional learning. However, the increasing number of enrolments has led to a shortage of classes and limited class time, posing a challenge for course development. The class duration is limited to forty minutes, with only two to three practical training sessions each week. Each training session is conducted in groups, allowing for just a few minutes of instruction per person. Furthermore, the practical training content is minimal and lacks effectiveness. Utilizing 5G technical assistance, students can utilize the network platform to instantly record or send oral training materials during class. Artificial intelligence technology identifies errors or deficiencies, allowing the teacher to provide specific help throughout the lesson.

According to the students' professional conditions for artificial intelligence testing, the grouping is done based on their abilities. This means that students with similar abilities are grouped, either in a combination of strong and weak students or in separate groups of strong and weak students. The purpose of the strong and weak combination grouping is to enhance the progress of each other and provide support. On the other hand, the strong and weak individual grouping allows for clear differentiation in progress among students. The hands-on training conducted in the classroom is captured and evaluated in real-time by artificial intelligence using a 5G network. This enables students to engage in repeated practice and correction outside of class. The practical class arrangement of local applied undergraduate faculties in line with the 5G era involves adjusting the organization of small classes in terms of class time and personnel grouping. This aims to create a small class teaching model and enhance teaching effectiveness.

5. Discussion of Practice and Faculty

5.1. Enhancing “5G Contextualized” Practice

The reality is that local colleges and universities have a poor broadcasting source for their students. Additionally, there is a stereotype that art students have a bad cultural heritage. Furthermore, a prevalent issue among art students is the tendency to rely solely on physical actions without using their intellect. Most art students have extroverted tendencies and tend to think quickly and impulsively, which poses challenges in terms of managing and educating them. The faculty size at local colleges and universities is quite small, and the professors may lack expertise due to restrictions in the knowledge structure. Additionally, the administration of part-time teachers may be lax. The insufficiency of local professional teaching, along with a shortage of teachers, hinders the improvement of professional abilities in professional practice education.

Many local colleges and universities offer broadcasting professional practice classes. These classes typically involve small groups of students engaging in either indoor or outdoor one-on-one practice sessions. Each student is given a short amount of time, usually 3 to 5 minutes, to practice their skills. Professional teachers guide specific knowledge points or chapters in an organized manner. The training mainly consists of simulated classroom exercises that cover the fundamental aspects of the profession. However, as the training progresses, students may become less interested and their focus may be limited to specialized knowledge, resulting in a lack of critical thinking and practical experience.

It is recommended to develop specialized courses on 5G contextual practice that integrate theoretical knowledge with practical application. This can be achieved by utilizing multimedia communication platforms such as campus TV stations or local media outlets, as well as dedicated training facilities like recording studios. The projects should be carried out by groups of students, who are required to complete multiple assignments within specified timeframes and engage in real-time collaboration. The roles within each project should be rotated, allowing students to gain diverse experiences. Furthermore, the practice sessions should involve both indoor and outdoor activities, with real-time monitoring and transmission of 5G technology. The teacher's role should include providing immediate guidance and supervision throughout the entire process. For instance, the TV broadcast hosting course provides training for news programs, establishes staff for editorial and broadcast control, and enhances the speech abilities of news anchors and on-site reporters during live broadcasts. Experienced educators establish the training scenario, while students carry out the training by the scenario. Subsequently, they review and contemplate the counsel provided during the training. The utilization of 5G technology and artificial intelligence enables real-time contextualized practical training, ensuring both convenience and protection.

5.2. Develop Specialist Faculty to Work alongside Science and Practice

The faculty responsible for teaching broadcasting and hosting arts majors in local colleges and universities is primarily composed of teachers with literature-related backgrounds, such as Chinese language majors and Chinese international education. Unfortunately, there is a scarcity of professional teachers in this field, and the number of part-time teachers who have actual industry experience is also limited. Typically, these part-time teachers are local media announcers and hosts who work in the industry. As a result, the faculty in this area is small and lacks strength. The professional teachers in this field are either professors with related backgrounds or young teachers who lack practical experience. They also lack professional knowledge and industry experience. While the part-time teachers have industry experience, they do not possess sufficient knowledge and a theoretical framework. Consequently, local colleges and universities suffer from a shortage of faculty members in the broadcasting professional disciplines. When it comes to education, the primary focus should be on enhancing the local teaching staff as they play a crucial role in effectively educating kids.

In China, there are only two universities that provide a professional doctoral degree in broadcasting and hosting art. The number of doctoral graduates in this field is quite limited, as well as the number of doctoral professionals. This scarcity of doctoral professionals has led to a mismatch between the need for their expertise and their availability in colleges and universities. The professional master's degree and specialized master's degree are exclusive to art institutions, while undergraduate degrees are more widely available. However, for teaching positions in colleges and universities, a master's degree is a prerequisite in certain fields, although it may not be required for a career in broadcasting. Modern colleges and universities prioritize the cultivation of talent, with a limited emphasis on higher education. Broadcasting and hosting art, being a highly practical discipline, cannot be effectively taught just through theoretical understanding. Broadcasting instructors must possess an advanced degree in this field and possess first-hand experience in both teaching and working in the media industry [4].

As per the current assessment by local colleges and universities, there are two main issues in the field of broadcasting education. Firstly, professional teachers often lack high academic qualifications. Secondly, there is a shortage of practical talent. Typically, full-time faculty members in colleges and universities have strong theoretical knowledge but lack practical experience, while part-time faculty members have less stringent management. In such a situation, it is crucial for local institutions

undergoing a transition to enhance the recruitment of skilled professionals. Local policies should facilitate the recruitment of talented individuals, while institutions should increase the utilization of experienced teachers and provide training for both theoretical and practical knowledge, as well as cultivate exceptional subject leaders. Additionally, there should be a focus on strengthening the training of young teachers. The training of young teachers involves a blend of theoretical and practical approaches. The focus is on doing scientific research to expand their understanding of professional theory. Emphasis is also placed on practical experience to enhance their professional skills, aiming to cultivate specialists who excel in both theory and practice.

6. Discussion of Recruitment Methods and Talent Training

6.1. Transforming Traditional Recruitment

Regarding the enrolment of art majors and the evaluation of their achievements, college entrance examinations consider both professional and cultural achievements. However, cultural achievements are relatively low in comparison. The enrolment process requires a combination of professional and cultural achievements. Each year, students must participate in either the provincial professional unified examination or the examination conducted by professional schools. Enrolment in local undergraduate colleges and universities is primarily sourced from the province. This means that most students are admitted based on their performance in the provincial unified examination. However, there is a significant number of candidates whose professional results are weak or unsuccessful. As a result, these colleges and universities recruit students from other provinces, but the number of students from these sources is low and the quality of their recruitment is not as high. It can be said that these colleges and universities mainly cater to students who are preparing for the college entrance examination and do not truly excel in their respective fields of study. The recruitment of economically disadvantaged students by local colleges and universities, combined with the lack of diversity in the quality of art students, has led to issues in talent training within local institutions. This, in turn, hinders the progress of local colleges and universities in their efforts to transform into applied learning centers. The advent of 5G technology in the field of artificial intelligence necessitates a transformation in the approach to recruiting artists and implementing intelligent talent training methods. This is crucial for enhancing the quality of education for students and facilitating the local placement of suitable individuals [5].

The current recruitment process prioritizes cultural courses over professional ranking, with a small portion of professional courses taking precedence over cultural courses. In recent years, there has been a trend of arts and sciences students with strong cultural achievements being admitted to broadcasting professional institutions. Emphasizing cultural achievements and enhancing broadcasting hosting art skills is considered the most effective way of admission. The proportion of cultural achievements in the admission process should be no less than seventy percent. The professional examination typically consists of an oral examination and an interview. In most provincial unified examinations, only one test is retained. However, school examinations are divided into a preliminary examination, a retest, or even three tests. Some of these examinations have added a written test, advocating for a combination of a written test and an interview. This means that the written test is accompanied by an oral examination. The educational authority aims to enhance the provincial examination by augmenting the written test requirements for both the preliminary examination and the retest. Additionally, for school recruitment, collaborate with the institutions to amplify the three test components. Local colleges and universities rely on provincial sources for recruiting. These sources only support the use of a thorough written examination and interview as part of the selection process, which helps to assess professional judgment. Students residing outside the province are required to undergo a school recruiting written test and interview to choose high-

quality students who are suited for regionalization. This would not only enhance the local art institutions but also be accountable for the teaching of art students.

6.2. 5G Intelligent Talent Training

Disseminating and facilitating art professional training requires a professional theoretical understanding and a diverse range of composite qualities. In the present period, there has been a growth in the number of schools and universities offering programs in new media. However, the demand for such programs is still lower than the supply. This is mostly due to the flawed talent training methods. The 5G intelligent talent training mode refers to the approach and methodology used in college education to meet the demands of new technology conditions in local applied colleges and universities. In this analysis, we will examine the broadcasting and hosting professional talent training mode from four different perspectives.

Firstly, acknowledge the reality by considering the local features. The city has a limited number of general local institutions and traditional media outlets such as radio and television units. The demand for announcer hosts is not high, but there is a growing need for talent in the field of new media due to its increasing popularity. The paper media also needs to incorporate new media and therefore requires individuals with skills in this area. Institutions that specialize in training announcer hosts should not only focus on individual training but also align with the unique characteristics and professional requirements of the local community.

Secondly, the higher education institution should enhance its curriculum to address job opportunity challenges and meet the evolving demands of the labor market. The current employment scenario is bleak, with a growing tendency of mismatch between professions and available jobs, as well as a rise in professional services provided by non-professionals. While traditional media has its merits, the primary focus of the audible language expression profession is to develop the skills of effective verbal communication. The professional's first impression is shaped by their image, temperament, and adherence to etiquette norms. Therefore, all industries require individuals with exceptional expression skills, including sales, publicity, training, and language teaching. Proficiency in expression, speech, and communication is crucial in meeting the demands of today's society when choosing a career.

Furthermore, the training and teaching mode transforms, incorporating the intelligent differentiation of 5G technology rationally. To address the issue of a limited number of students, it is proposed to implement artificial intelligence to actively monitor students' interests and tailor the training process accordingly. This includes adjusting the training mode in real-time and offering specialized courses in relevant fields. Additionally, a practical teaching platform will be established through the creation of a media practice center, enabling students to engage in multifaceted practical experiences. These measures aim to promote the comprehensive development of students and facilitate a rational and effective transformation of the teaching approach.

The fourth aspect is the convergence of 5G media, which emphasizes the unique strengths of individuals and provides specialized training. Significantly foster the advancement and business ventures of university students, enabling autonomous entrepreneurship to benefit the community.

7. Conclusions

The broadcasting and hosting art major is considered the most superior among art majors. It involves the practice of oral communication and being an effective communicator. In the era of 5G intelligence, there is a growing need for individuals who can express themselves vocally. Therefore, colleges and universities should prioritize the development of this profession. Local institutions should also focus on advancing the discipline within this field. This can be achieved by implementing a “5G hybrid” flipped classroom, creating small class teaching modes tailored to the number of

students, and incorporating artificial intelligence in group teaching. Additionally, it is crucial to enhance professional practice within the context of 5G and train expert teachers who possess both theoretical knowledge and practical skills. Traditional recruitment methods should be transformed to adapt to the demands of 5G intelligent group teaching. The teaching mode of the mini course is designed for professionals and focuses on group instruction in artificial intelligence. It aims to enhance practical skills in the field of “5G contextual” and develop expert teachers who excel in both theoretical knowledge and practical application. This approach challenges the conventional recruitment method and emphasizes the training of intelligent talents in the 5G industry. Only by adopting this approach can local institutions effectively adapt to the applied transformation and development brought about by the arrival of the 5G era. Local colleges and universities can only achieve applied transformation and development in the 5G era by following this approach. This will enable them to meet market demands, enhance the construction of university disciplines at a high level, improve the quality of higher education, facilitate the delivery of local talent, and effectively serve as a bridge to higher education.

References

- [1] You Shohu. *AI-based 5G technology - research direction and examples*[J]. *Science China*. 2018. 12(15-89)
- [2] Yao Xishuang. *Introduction to broadcasting* [M]. Beijing: Communication University of China Press. 1998.2
- [3] Miao Yang. *Research on the construction of broadcasting and hosting art professional curriculum system in local undergraduate Colleges* [J]. *Popular Literature and Art*, 2012.4(270)
- [4] Wang Yang. *Strategies for building the quality of broadcasting and hosting art teachers in the new media era*[J]. *News World*, 2019.11(79-83).
- [5] Zhang Shunan, Yao Qiang, Liu Lijun. *Research on the Construction of Broadcasting and Hosting Art Specialties in Media Universities--Based on the Data Analysis of the First Batch of Declared National First-class Specialty Construction Points* [J]. *Media* 2021.12(88-90).