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APPLICATION OF ARTIFICIAL INTELLIGENCE IN THE SYSTEM "ARTS CLASSES – DRAMA SCHOOLS – PERFORMING ARTS COMPANIES" IN CHINA

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ПРИМЕНЕНИЕ ИСКУССТВЕННОГО ИНТЕЛЛЕКТА В СИСТЕМЕ «КЛАССЫ ИСКУССТВ – ТЕАТРАЛЬНЫЕ ШКОЛЫ – КОМПАНИИ ИСПОЛНИТЕЛЬСКОГО ИСКУССТВА» В КИТАЕ

В данной статье рассматривается вопрос о том, как технология искусственного интеллекта может произвести революцию в системе драматического образования и эффективно сократить цикл создания спектакля, улучшить междисциплинарные способности и оптимизировать подбор талантов путем создания интеллектуальной системы «драматического образовательного куба» (включая креативный инкубатор, лабораторию сценического исполнения, коннектор индустрии и обучения). Автором представлены результаты эксперимента, согласно которым показано, что, повышая эффективность стандартизированного обучения, система должна быть готова к подавлению зависимости от технологий при создании авангардной драмы, и, наконец, предлагает идеальную парадигму взаимодействия человека и машины: технология как прослеживаемая система координат творения не только поддерживает «сознательное и иррациональное» художественной интуиции, но и катализирует цифровую трансформацию экологии образования и позволяет в технологическую эпоху вырастить редких и сложных драматических артистов.

In the rehearsal hall of the Shanghai Theatre Academy in 2023, a student named Wang from the acting department is performing with a holographic projection of a virtual opponent. This intelligent system can analyze the rhythm of lines and facial expressions in real-time and provide feedback [2]. It is the result of a collaboration between the school and a local technology company. This scenario illustrates that dramatic education is undergoing a technological revolution, and the traditional apprenticeship model of teaching can no longer fully meet the needs of cultivating versatile artistic talents.

Now, the digitalization process in Chinese dramatic education industry is accelerating, and we have identified three main issues: long training cycles in schools contrasted with rapid employment needs from businesses; skills are too singular, while the industry requires versatile talents; artistic creation needs to be personalized, while teaching must remain standardized. Our research aims to explore new methods for training dramatic talents by establishing an intelligent education system that connects university education with arts classes, drama schools, performing arts companies.

Previous research has mainly focused on the technical aspects: for example, Stanford University's Virtual Actor system has proven that motion capture technology is helpful for acting training, but it has not yet solved problems in actual teaching scenarios. Domestic teams have attempted to use artificial intelligence to write scripts, but it seems they have not considered that artistic creation needs the human warmth of art, not just a pile of cold text.

A children's drama institution developed an artificial intelligence system of audience emotional feedback that is quite interesting: it can adjust the performance rhythm by monitoring the micro-expressions of the audience. This two-way interactive mechanism can be applied to teaching. However, current research is somewhat too focused on technology and has not considered the overall nature of the educational ecosystem.

We came up with the following three parts of the drama education cube system:

1. Creation Incubator: This is a script generation tool based on Low-Rank Adaptation (LoRA) fine-tuning technology. Unlike general AI, it does not generate content that is too novel due to a lack of training data. The system has a structural map of classic plays, and when students input creative keywords, the AI will provide 10 plot developments that conform to the principles of dramatic conflict.

2. Performance Laboratory: This Augmented Reality (AR) training system has already been used in the drama club of a middle school in Nanjing. When students perform "Thunderstorm", smart glasses provide them with two visual guides: the breathing rhythm light band for beginners, and the emotional heat map for advanced students.

3. Industry-Education Connector: This is an intelligent casting platform developed in collaboration with companies such as Hengdian World Studios of China. The AI not only analyzes students' performance videos but also uses dynamic game theory algorithms to match the best actors for projects [1].

Through our experiments, controlled experiments conducted at Chinese universities show significant show a significant difference in the control group (Table 1).

The data were obtained by comparing an experimental group using our system with data from a controlled experiment conducted by our team at Wuhan Communication University. The experimental group used intelligent drama creation system, while the control group used traditional teaching methods. Emotional authenticity ratings are based on Smith et al.'s drama assessment framework [4].

Table 1 – Comparison of the effect of intelligent drama creation system between experimental and control groups

Evaluation dimension	Group	Key indicator	Numerical value	Statistical significance
The influence of intelligent education system on students' dramatic creation efficiency	Experimental group	Scrip writing cycle	17 days	< 0.05
	Control group	Scrip writing cycle	28 days	–
	Experimental group	Emotional authenticity score	Up 12.3 %	–
The ability to complete the use of equipment using intelligent systems	Experimental group	Independent completion rate of lighting programming and debugging	83 %	< 0.01
	Experimental group	Independent completion rate of lighting programming and debugging	27 %	–
Business application feedback	Experimental group	Industry evaluation	\	–
System limitation	Experimental group	Probability of winning in experimental drama	Down 19 %	< 0.05

When the AI system suggests that a student should slightly tremble their right little finger while reciting the line “to be or not to be” [3], and the student chooses to clench their fist and then suddenly release it, and this is recorded by the system, we see the ideal state of human-machine collaboration - technology is not replacing creation, but making every artistic choice a traceable, iterative teaching point.

The future intelligent system for dramatic education must become an ecosystem catalyst, discovering students’ interests in high school, accelerating their creativity in university, and translating their value in the industry phase [5]. When technology begins to understand that the pause is more important than the lines, we may not only be cultivating better actors but also warm creators who are scarce in the technical era.

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ANALYSIS OF DIGITAL MUSIC EDUCATION IN BELARUSIAN UNIVERSITIES

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АНАЛИЗ ЦИФРОВОГО МУЗЫКАЛЬНОГО ОБРАЗОВАНИЯ В УНИВЕРСИТЕТАХ БЕЛАРУСИ

С быстрым развитием цифровых технологий цифровое музыкальное образование постепенно стало важным компонентом глобального музыкального образования. Существует много типов цифрового музыкального образования, включая использование онлайн-курсов, цифровых аудио рабочих станций (DAW), виртуальных инструментов, инструментов композиции искусственного интеллекта и других методов обучения музыке. В статье представлены результаты изучения актуального состояния цифрового музыкального образования в университетах Беларуси, и анализ будущего развития цифрового музыкального образования в Беларуси.

The world is undergoing a great transformation not seen in a century. With the development of the world economy, music education in Belarus is also steadily advancing. With the rapid development of digital technology, digital music education has gradually become an important component of global music education. There are many types of digital music education, including the use of online courses, digital audio workstations (DAW), virtual instruments, artificial intelligence composition tools, and other methods for music learning [1, p. 102–108].