

ICEST 2021**II International Conference on Economic and Social Trends for Sustainability of Modern Society****ONLINE LEARNING IN HIGHER EDUCATION IN CHINA (THE
PEOPLE'S REPUBLIC OF CHINA)**

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Abstract

With the recent outbreak of coronavirus infection, there has been a real surge in the popularity of online education. And it's not only about online foreign language schools or fitness courses, but also about full-fledged higher education programs. This article discusses the online education system in higher education institutions in China and one of the most popular online platforms RainClassroom. The article presents the results of a study that summarizes the process of the formation of distance education in the PRC and the current state of the online education system at this point in time. A comparative analysis has been carried out. The results of the analysis indicate that distance education originated in China in the middle of the 20th century. With the changes dictated by time and demand, a full-fledged modern online education system is born. The authors bring to your attention the development of a training lesson on teaching Chinese to Russian students in the RainClassroom mobile application. It was found that it is possible to use not only Russian, but also Chinese platforms of distance education with high efficiency in the study process. The study will contribute to the dissemination and popularization of online teaching of Chinese to students in the context of Russian universities.

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Keywords: Artificial intelligence, rainclassroom educational platforms, TV universities, online education, MOOC development



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1. Introduction

The active introduction of information (Internet) technologies into the system of higher education in China made it possible for the population to receive education at the end of the last century. In 1986, within the framework of the China Television Education (CETV), a three-system education with modern technical equipment began to operate in the PRC: a training system in educational institutions, on radio and television, on satellite television. By the end of the 20th century, the training system of the Central Radio and Television University covered 20 thousand subdivisions, which made it one of the ten largest universities in the world for distance open education. Distance learning in the higher education system in its modern sense was introduced in the 1990s. In connection with the development of network and computer technology: Tsinghua Polytechnic Institute (1996); Hunan University (1997) (Sun, 2009, p. 2). In 1998, the Ministry of Education of the PRC approved the creation of the first experimental points of modern remote control for several more universities. In early 1999, inspired by the success, the Ministry of Education of the PRC is developing a new action plan aimed at educating and increasing the literacy level of its population, and thus, the Program of Modern Distance Learning in the country's universities is becoming one of the highest priority projects of the 21st century.

2. Problem Statement

The problem of organizing distance learning of students in Russian universities and the use of educational platforms arose in connection with the epidemiological situation in the world, which significantly actualizes this issue. A survey analysis of publications and Internet resources allows us to note that research needs to be systematized, adapted and developed taking into account the specifics of federal state educational standards in Russia.

Special:

- 2.1 Directions of the educational space of China and the specifics of the implementation of new educational technologies of the Republic of China.
- 2.2 The role of Chinese innovations in the higher education system in the development of domestic educational platforms and mobile applications.

2.1. Directions of the educational space of China and the specifics of the implementation of new educational technologies of the Republic of China

The educational space in China consists of the following areas:

- Primary and secondary Online education: homework; English language training. Notable companies are 17ZuoYe (一起作业), Vipkid, Yuanfudao (猿辅导) and Zuoyebang (作业帮).
- Testing and preparation for exams: CET-4, CET-6, TOEFL, IELTS Some large organizations: Koolearn (新东方在线), GEDU (环球网校) and offcnEducation (中公教育).

- Professional education: technology, accounting, finance, etc! Examples of companies: FenBi (粉笔网), huatuEducation (华图图), Chinaacca (中华会计网校) (vc.ru., 2019).

Vocational and higher education in China is mainly obtained by the adult population for a number of reasons: self-control, specific learning goals, limited free time, etc. High motivation in preparing for the certification exam is necessary to get a decent job after completing vocational and higher education.

2.2. The role of Chinese innovations in the higher education system in the development of domestic educational platforms and mobile applications

Since 2011, the Chinese government has increased the share of GDP spent on education almost every year and has supported a large number of initiatives aimed at developing education: the construction of the MOOC Times Building industrial park. The high-rise tower (Beijing, Zhongguancun area) or China's "Silicon Valley" is an educational technology center with equipped production studios, in which to shoot and edit videos for training courses. In 2017, at the suggestion of Prime Minister Li Keqiang, a plan was developed and implemented to introduce new educational technologies and modernize the national education sector until 2030.

The efforts made by the PRC government, the development of the offline and online education system, and, of course, the persistence and hard work of the Chinese people contributed to a significant increase in the level of education in the country and by 2007 the share of the country's illiterate population compared to 1949 (80%) is already 5.7%. The government has taken seriously the need to strengthen the leadership of community education (education within a community) in cities and villages of national districts (Guruleva, 2016a, p.105). By 2020, the level of education development in national areas and its main indicators should approach or to reach the average level across the country, it is necessary to gradually align the provision of basic public educational services (Guruleva, 2016b, p. 62). At the same time, despite the rapid development of large Chinese cities and villages, an increase in the quality of life, there are students who have limited access to high-quality educational resources for geographic or other reasons, there is an opportunity to study remotely, on educational online platforms. According to statistics, China is home to almost 20% of the world's population. And with the end of the "one family - one child" policy (which has been going on for the past 35 years), the population will increase, which will lead to an increase in the number of students in the coming years. This is due to the rapid development of the Chinese economy. That is why the Chinese are ready to invest in the education of their children already in early childhood (in kindergarten). According to the South China Morning Post, in China, families with preschoolers spent an average of 26% of their income on education, and families with schoolchildren spent 20% of their income. Every year, the requirements for the level of education are growing, which is fueled by huge competition for a decent job by Chinese university graduates.

On October 29, 2015, China adopted the "Proposals of the CPC Central Committee for the Development of the 13th Five-Year Plan for Social and Economic Development", which, among other things, includes the implementation of the informatization of education. Accelerate the implementation of the program "3 communications, 2 platforms", which includes the following provisions: broadband Internet

should come to every school, high-quality resources should come to every class, educational Internet space should come to every person; it is necessary to create a platform of public services of educational resources and a platform of public services of educational management (Guruleva, 2017, p. 106).

3. Research Questions

The following questions were raised during the study:

- What are the origins of the development of distance education in China?
- What is the specificity of the RainClassroom educational platform?
- Why is China's experience in the introduction and widespread use of multifunctional educational platforms of great importance in the educational space of Russia and other countries?

4. Purpose of the Study

The purpose of the study is to study the experience of online learning in the higher education system and to identify the degree of effectiveness of using the XuetaangX distance education platform in the conditions of Russia and other world countries. It is assumed that the answers to the questions posed will help achieve the goal and will contribute to the development of recommendations for the operation of educational online platforms and mobile applications outside the People's Republic of China.

5. Research Methods

The authors used as a comparative-historical as well as a comprehensive and systemic research methods.

5.1. XuetaangX is the world's largest distance education platform

Online higher education in China - multistage: online community, MOOCs, online lectures (2010); mobile + education (2013). Now online education is the main sector, and therefore such well-known Chinese companies as Vipkid, Zouyebang, Yuanfudao are making multimillion-dollar investments.

Within the framework of our research, one of the world's largest distance education platforms XuetaangX (pronounced "Xuetaan-X"), named after one of the oldest schools of the university, Tsinghua Xuetaan, is of scientific interest. The platform was created and launched in 2013 by MOOC-CN Education with the support of the Chinese Ministry of Education Studies and Tsinghua University to develop and run MOOCs. Such projects involve students from different countries, allow them to teach new material, exchange interactive information and consult with leading teachers in real time.

Today XuetaangX is one of the five largest MOOC developers in the world and brings together the educational resources of the world's best educational institutions - in particular, Stanford or MIT, providing access to their knowledge, certificates, diplomas and degrees. The company works closely with the

UNESCO International Center for Engineering Education (ICEE) and develops blended curricula for 18 million students from 200 countries.

According to Fengua Ni, chairman of the board of directors of XuetangX, the specificity of the platform in question is that there are well-developed search systems and course recommendations. In the Community section, students can exchange impressions and leave feedback on the passed materials. This form of work is effective because the authors of the application combine and use the key advantages of face-to-face and online learning in order to "<...> help students and keep in touch with them - not only during lessons, but also before and after classes" - states Fengua Ni (Innovation Hong Kong, 2017).

The XuetangX educational platform is regularly upgraded: development of independent work modes; restructuring and redistribution of teaching materials; updating courses. This allows professors to follow the course of the course and make adjustments as needed. Information about the educational process in this case is covered from different angles.

5.2. MOOC-CN Education Projects

One of the most famous projects of MOOC-CN Education is the Rain Classroom mobile application, which uses 'cloud technologies' to store unique student projects.

The universal Rain Classroom application (in Chinese and English), which is actively used by almost all Chinese universities, was developed and launched on the platform of the top messenger WeChat in April 2016 in cooperation with Tsinghua University. The advantage of the app is that it is free and available in a mobile / web version. Teachers deliver classes, post assignments, monitor progress, download tests and study guides for students, and get free access to over 10,000 MOOC videos (Tsinghua University, 2021), which allows them to integrate Rain Classroom with any convenient learning system.

6. Findings

6.1. XuetangX educational platform

In the first three years of the existence of the educational platform XuetangX by 2016, 5 million users were registered on it, and three years later, in 2019, their number increased to 14 million, which is about 4000 times the number of students at Tsinghua University and is about 36% of students from all universities in China. Moreover, the educational resource can be used not only by residents of China, but also by students from other countries. All students can choose suitable short-term online courses: on the basis of the platform, there are more than 2,000 distance learning programs developed by the world's leading universities and enterprises. The platform cooperates not only with Stanford University and the Massachusetts Institute of Technology, but also with universities in France, South Korea and Latin America, "importing" knowledge from abroad and providing international students with access to their courses. Artificial intelligence as a teacher, as another project of XuetangX, and a mobile app that track progress, help shy students connect with university systems, and foreign students from other countries effectively overcome the language barrier and receive personal advice from leading subject teachers.

6.2. Development of a training lesson on teaching Chinese to Russian students in the RainClassroom mobile application as one of the effective projects of XuetaangX

How to teach with Rain Classroom?

Download the App (Rain Classroom official site, 2020).

Login Rain Classroom on your PC: → Start PowerPoint. → Scan the WeChat logo in top left corner of the PPT file. → To log in, input the 4-digit code that your mobile received - WeChat logo changes to your profile - you're in charge!

To insert questions into your PPT slides:

E.g. To create single-choice questions: a. Click on the 'Single-choice questions' icon → b. Follow the template (question goes to the top, options down below). → c. In the side panel (on the right), pre-pick the correct answer.

E.g. To create open question: → a. Click on the 'Open-ended questions' icon; → b. Type your question in the text box.

Click on the icon 'Start Class' to teach with Rain Classroom' → Fill in the class information (course title, section, unit title). → Click on the button 'Start Class' at the bottom to make sure start now! → A QR code appears on the screen. Class password appears at the bottom. → Students scan the QR code by WeChat to join the class. → To start teaching, you can either click on the arrow in the circle (on the right), or press 'Start teaching' on your mobile device.

Send questions during the class

When turn to the exercise pages, the teacher's mobile phone appears the icon [Send]. → Click it to send the page directly or in limited-time. → After sending the problems, the mobile phone terminal appears the students' answer in time.

Open 'Danmu' to discuss, help your class more interesting

On your mobile device, touch the third icon [Activity] from the bottom left. → Activities include function, → E.g. Sign in, Send quiz, Hand out quiz, Turn on/off Danmu, Check Post

Click [Danmu] → Click the icon in the top right corner to turn on → Click the icon [Screen], project to the screen → Touch [Refresh] to check more Danmu

Show Post in the class

PS: Students can send post to teachers anytime during the class, then teachers can choose which one to project.

Check Post list → Save the picture → Project to the screen → Check Unclear Pages → Roll Call → End class and check teaching data

You can end class in the computer or mobile phone, then check teaching data in your mobile phone.

How to make the pre-courseware

Creat a new phone slide (Vertical slides are easy for students to read on their mobile phones) → To insert questions in your PPT slides → To insert MOOC or videos in your PPT slides

Synchronize your slides with RC for your mobile phone

Send courseware to students

Click to preview → Hold and talk to add explanation → Click to publish → Add deadline and choose class, then release it

Check teaching data in the mobile device

After sending the pre-courseware to students, teachers can check teaching data in the mobile phone.

How to make the test

Method 1 : How to make the test 1. Click 'New Test' to create and send new tests. 2. Insert questions

Method 2 : Click 'Import' to import word documents directly.

Upload the test to mobile phone, saved in 'My test' You can sent to students directly, Or sent to students when you need.

Other functions (Rain Classroom official site, 2020).

Input announcement title and content. → Support the text message, webpage link and so on. → Click send to the class.

7. Conclusion

The study indicates the prospects for the practical implementation of the implementation and use of foreign training platforms, such as the Rain Classroom application.

"According to The World University Rankings, China entered the top three in terms of the number of leading world-class universities, behind only the United States and Great Britain." (China Campus CNN, 2020). Higher education is becoming more and more affordable. The person is no longer held back by distance or lack of physical capabilities. If higher education at the beginning of the 20th century was perceived as something exclusive and elite, then in recent decades more and more people can afford this "privilege". Modern technologies allow us to gain knowledge wherever we are in the world. The advent and spread of the Internet makes information readily available and disseminates it at high speeds.

The Rain Classroom app is available to all students in both China and Russia. It is practical to use and helps to build the learning process so that the student-teacher interaction is as effective as possible. The application contributes to the rapid tracking of students' progress, allowing them to communicate with the teacher not only in the classroom, but also outside the educational process, exchange slides, documents, videos and tests. Students can also send feedback and suggestions to the teacher so that the latter can adjust the teaching strategy. Rain Classroom works in real mode and has a very nice and easy-to-use interface in Chinese and English.

In this paper, we examined the experience of introducing distance education into the educational system of the PRC. The information obtained during the study can contribute to the development of recommendations for the operation of online platforms and mobile applications outside the People's Republic of China. This issue is worthy of a more detailed consideration. It is necessary to study all the available experience of innovations in online education in China and other advanced countries. And also, analyze the effectiveness of using platforms such as Rain Classroom. The study certainly deserves attention and further research.

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