

The 7th Global Competition on Design for Future Education (2024)

Project Design Report

Project Name: ChinaChat

Project Type: Software Prototyping

Competition Theme: Metaverse and Education

Team Name: Echo

Team Members: Anjie Wu

Qian Xu

Hongyuan Bu

Chen Yang



Abstract

当某一代的中国人移民到国外之后，新的一代就会在充斥着外国文化的环境中成长，那么之后的一代又一代对于中国的概念就会越来越少，因为受教育不同，他们会慢慢融入到新国家中去，他们会接受这个国家的所有比如教育、观念和文化，而为了不让自己显得格格不入他们渐渐地产生了对中华文化的排斥心理。由于目前有越来越多的海外华裔们对本国文化产生了排斥心理，他们不愿意说中文甚至有的不愿意承认自己是中国人，针对该现象我们决定设计一款社交学习类软件来帮助唤起海外华裔的民族自豪感和文化认同感

When a certain generation of Chinese emigrate to foreign countries, the new generation will grow up in an environment full of foreign culture, then the following generation will have less and less concept of China, because of the difference in education, they will gradually integrate into the new country, they will accept all the education, concepts and culture of this country. In order not to make themselves seem out of place, they gradually produced a psychological rejection of Chinese culture. At present, more and more overseas Chinese have a psychological rejection of their own culture, and they are reluctant to speak Chinese or even admit that they are Chinese. To solve this phenomenon, we decided to design a social learning software to help arouse the national pride and cultural identity of overseas Chinese.

1. Project Background

BLUE BOOK OF OVERSEAS CHINESE: ANNUAL REPORT ON OVERSEAS CHINESE STUDY (2020) shows that in 2016-2017, the number of overseas Chinese in the world was about 58 million, which is 2.6 times the number in the early 1980s. By 2020, there will be nearly 60 million overseas Chinese in the world. Overseas Chinese have inseparable blood relations and cultural origins with the Chinese nation. They are an important channel for conveying the spirit and connotation of the Chinese nation and spreading the excellent Chinese culture overseas. In recent years, the international situation has been changing and complicated, and there have been voices of slander and distortion of China's image, over-interpretation of China's policies, and misleading overseas people with negative reports, which have led to stereotypes and cognitive bias towards China and Chinese culture in overseas societies. Under the influence of this negative effect, the initiative and enthusiasm of overseas Chinese to participate in the international dissemination of Chinese culture have also been limited, which affects the pace of Chinese culture going out of the country and into the world.

Dual Cultural Identity is the main and most common type of identity among overseas Chinese. Human identity is "situational" and fluid, meaning that individuals may adopt different

identity strategies or generate different subjective identities according to different situations. The development and popularization of the Internet have provided support for diasporas around the world to create cross-border "virtual ethnic communities" (virtual ethnic communities), and these "digital diasporas" (digital diaspora) have been able to create their own identities through the "digital diaspora" (digital diaspora). These digital diasporas demonstrate their concern for the development of their homelands through homeland media consumption. In the transnational world connected by the Internet, the diaspora has gradually realized the transformation from "double absence" to "co-presence". This state of "co-presence" is not only reflected in the diaspora's relationship with relatives and other diaspora members in the home country, but also in their relationship with the society in the home country. The people of the ancestral homeland share a virtual ethnic community with the diaspora, and are the main listeners and responders to the identity discourse issued by the diaspora. With the development of Internet technology, more and more Chinese immigrants are posting homemade videos on Chinese online media to present the landscape of their lives in their countries of residence. Among them, how to perpetuate cultural practices in the home country and expressing concerns about the home country's economy are among the key themes of these videos.

2. Design Process

Based on the methodology provided, we designed the social learning software called "ChinaChat" (C-Chat) according to these six elements (original requirements, target users, stakeholder analysis, competitor analysis, scenario analysis and feature list).

2.1 Original needs analysis

First of all, we find that many Chinese foreign citizens have cultural exclusion. They refuse to accept Chinese culture, but there is no shortage of them. They may be interested in learning traditional Chinese culture, but they may face cultural and language barriers, and there may be cultural rejection and technical barriers. Therefore, after sorting out these needs, we determined the purpose and application scenarios of our design of ChinaChat, hoping that the final product can inspire users' national pride.

2.2 Target user analysis

We have an in-depth understanding of our target user group, Chinese foreign citizens.

Foreign citizens of Chinese descent may be located all over the world, including but not limited to North America, Europe, Australia and other regions. They may vary in age, gender,

occupation and educational background. They may have a complex cultural identity that is both connected to traditional Chinese culture and integrated with the culture of the country or region in which they live. Because of possible cultural rejection, they may prefer to study in English or other foreign languages rather than Chinese. They may prefer to learn visually and interactively rather than the traditional written way. Therefore, we connect this software with VR, so that Chinese foreign citizens can personally experience the lively atmosphere of traditional Chinese festivals. Experience the magnificent rivers and mountains of the motherland, experience and learn the production process of the four treasures. In this way, we hope to arouse their national pride and at the same time realize the spread of Chinese culture on the world stage.

2.3 Stakeholder analysis

We first identified the stakeholders of the project, including Chinese foreign citizens, investors, cultural organizations and institutions. Assess the importance and influence of each stakeholder to identify areas of focus in the design and development process.

Foreign Chinese users They want to understand and learn about traditional Chinese culture, and at the same time build cultural connections and social networks by communicating with other Chinese and Chinese people. Satisfaction with the content and functions of the software will directly affect their experience of using it and their attitude towards Chinese culture, so we have introduced some games, creative functions and vr design into the software.

The investor expects to receive a return by investing in the project, which may be a financial return or other forms of return, such as brand promotion. Financial support from investors will also affect the speed of development and promotion of the project. Therefore, we will consider introducing some advertising and other designs in the future to ensure the smooth development and implementation of the project.

Cultural organizations and institutions can promote and disseminate traditional Chinese culture through this platform to increase foreigners' understanding and cognition of Chinese culture. Their cooperation and support can provide content and resources to the software and enhance the credibility and impact of the software.

2.4 Competitor analysis

We studied similar educational and cultural communication software to understand their functionality and user experience. Then we select some competitive products that are in line with our goals and analyze their advantages and disadvantages. Finally, the excellent features of competitive products are extracted and introduced into our design to guide our design and development process.

2.5 Scenario analysis

To identify the scenarios that users may face, including the scenarios of learning Chinese culture and communicating with other Chinese people, we designed some interaction areas.

2.5.1 Learning traditional Chinese culture:

When using the software, users may choose to learn specific aspects of traditional Chinese culture, such as history, literature, art, or customs. They may want to learn about the knowledge, stories, and background of these topics. Therefore, ChinaChat provides three sections: the Four Treasures of the Study, the scenic spots of China and the traditional festivals and customs of China. Users may also want to understand and learn about traditional Chinese culture by reading articles, watching videos or participating in discussions. Further features will be developed to provide various types of learning resources, including articles, videos, pictures, audio, etc., and to provide interactive learning experiences, such as quizzes, questions and discussion boards.

2.5.2 Communication and social interaction:

Users want to communicate with other users or Chinese people, share their views, experiences and culture, and build social relationships and friendships.

Therefore, ChinaChat's design will also provide real-time chat functions, discussion boards, comments and likes, so that users can communicate and interact with other users on these platforms and share content and opinions. The hope is to be able to easily communicate and interact with other users, share feelings and experiences, and learn about other people's cultures and lives.

2.5.3 Immersive experience:

Provide VR connectivity, allowing users to participate in virtual holiday celebrations, historical scene re-enactments or Tours of historic sites, and other immersive experiences through VR devices.

2.5.4 Access to activity and event information:

ChinaChat has designed a fixed section so that users want to keep abreast of Chinese culture-related events, exhibitions, performances and other information in order to participate in or keep up with the latest developments. It is also possible to obtain information on activities and events held by various cultural organizations and institutions on the software, including time, place, content, etc.

2.6 Function list analysis

Finally, a list of functions required by the software is presented, including basic functions and innovative functions. Determine the importance and priority of functions based on user needs and

competitive product analysis. And carry on the preliminary function icon, logo, page design.

3. Introduction to Works

This app called "ChinaChat", or "CChat" for short, is a social learning program designed for ethnic Chinese to not only learn about traditional Chinese culture, but also to communicate with other Chinese.

3.1 Appearance

The logo of APP is a circle, the whole is a picture containing moonlight, ancient buildings and mountains and sea; the "C" in the center represents the initials of the name of APP, "ChinaChat", and also symbolizes a curved moon; the mountains and sea at the bottom represent the magnificent history and culture of China (Figure 1). The logo is drawn in traditional Chinese colors: the base color and the mountains and seas are in navy blue, and the ancient buildings, stars and the "C" in the center are in gold. The navy blue background symbolizes the maturity, stability and wisdom of China and its people; the gradation from light gold to dusky yellow symbolizes the vitality of traditional Chinese culture, which is now exploding, and the accumulation of more than 5,000 years.



Fig. 1 LOGO of APP

After opening the APP, the first thing shown is the opening screen (Figure 2). A person dressed in ancient Chinese costume walks on the golden copperplate book avenue, which is both the well-traveled road of traditional Chinese culture and the road home for Chinese nationals on the cultural level. On the top is the APP logo, welcome message and slogan. The opening screen is only about two seconds long, and then it goes to the login screen (Figure 3).



Fig. 2 The opening screen of APP

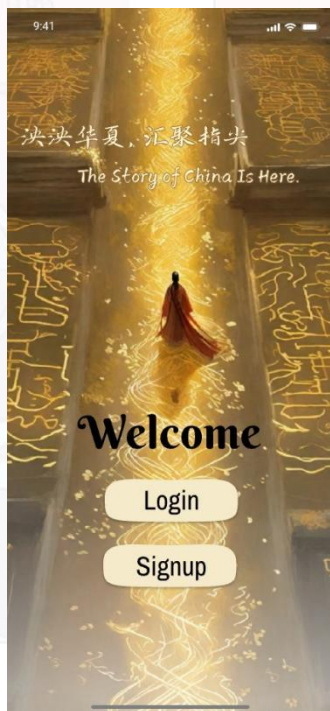


Fig. 3 The login interface of APP

On the User Center page, they can set up their personal information, choose a language, connect VR devices, and make suggestions to us.

3.2 Prototype and functions

After entering the APP, it is in the homepage position by default (Figure 4). At present, the

APP mainly focuses on three sections: cultural treasures, Chinese scenic spots and traditional Chinese festivals and customs. In these three sections, overseas Chinese users can browse authentic videos about these traditional cultures. If users want to experience the cultural atmosphere and have a high sense of participation, they can go to the user center (Figure 5) and click on "VR Connecting" to connect their own VR devices for an immersive experience. At the same time, users can post and browse wonderful Chinese traditional culture videos, as well as like, comment and share them; in addition, the platform also provides some reference commodities for users to freely shop (Figure 6). Under these three sections, there is the "Wonderful Recommendations" section, where the system recommends the developments of museums and other cultural organizations across China based on big data, making it easy for users to keep abreast of activities and major events.

At the bottom of the homepage, from left to right, there are Home, Video, Message and User Center. The video area is to provide users with a variety of short and long videos about proper Chinese traditional culture, which users can like, comment and share as well. In the message area, Chinese overseas Chinese can communicate and interact with Chinese people. On the User Center page, they can set up their personal information, choose a language, connect VR devices, and make suggestions to us.



Fig. 4 Home page of APP

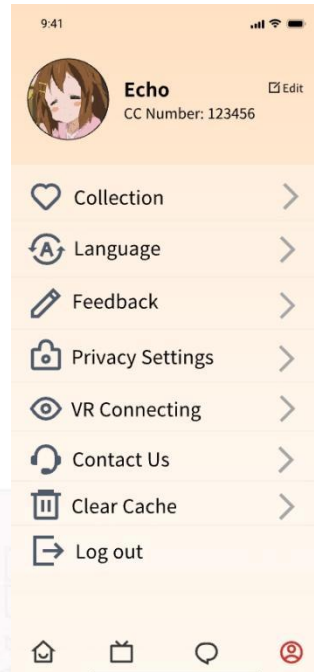


Fig. 5 User Center page

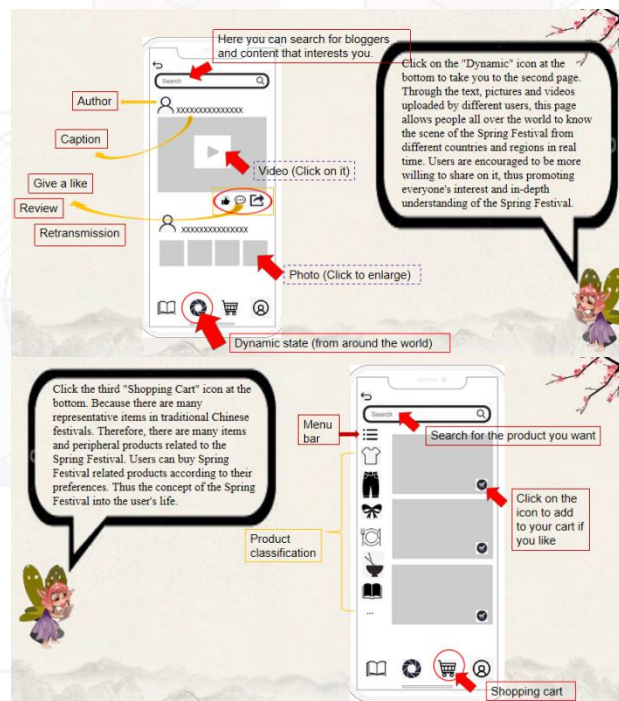


Fig. 6 Dynamic and Shopping Cart

Once users are on the main page, click the first knot icon. This leads to the section on four treasures. Pixie Wiki will lead users to experience the four treasures of the study according to the user's choice, such as historical origin, brush, ink, rice paper and inkstone (Figure 7).

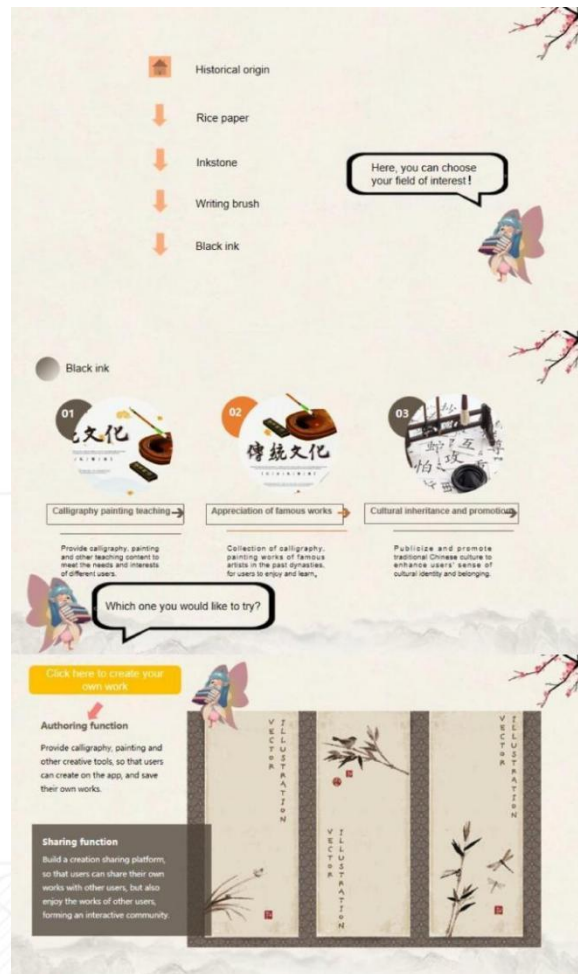


Fig. 7 Preview of the function page of Four Treasures of Study

Once users are on the main page, click the Chinese knot icon. This leads to the section on places of interest of China (Figure 8).

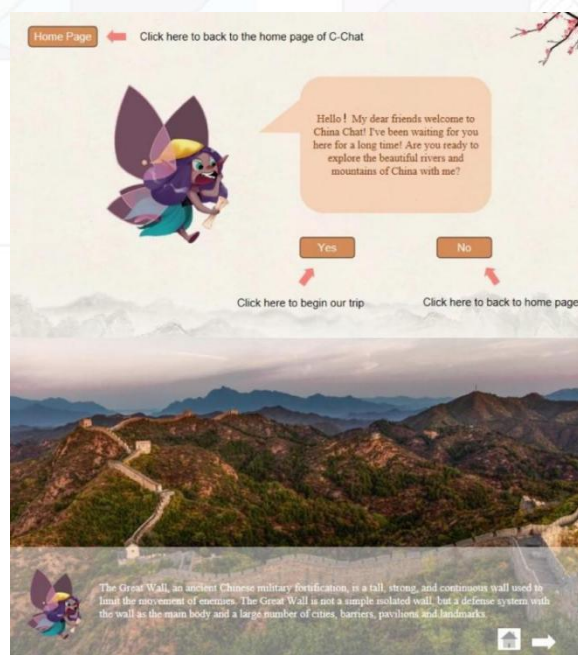


Fig. 8 Preview of the function page of Places of Interests

Once users are on the main page, click the Chinese knot icon. This leads to the section on traditional Chinese festivals (Figure 9).



Fig. 9 Preview of the function page of Traditional Festival

3.3 User privacy protection and rights safeguards

3.3.1 Strengthening data encryption technology

When handling user data, strong password policies and multi-factor authentication mechanisms should be used to ensure that only authorized users can access their personal information. At the same time, use end-to-end encryption technology to encrypt the transmission and storage of user data to prevent data from being intercepted or tampered with during transmission. In addition, encryption algorithms are regularly upgraded and updated to cope with ever-changing cybersecurity threats.

3.3.2 Clear privacy policy

A clear privacy policy should be formulated to clearly inform users of how their personal information is collected, used, stored and shared. The privacy policy should follow the principles of lawfulness, legitimacy and necessity, and avoid excessive collection of user information. At the same time, it should ensure that the privacy policy is easy to understand, avoiding the use of overly complex legal terms, so that users can easily understand their rights and interests. The privacy policy can be found in the ChinaChat interface, including through pop-up windows, text

links, frequently asked questions (FAQs) and other forms. The Privacy Policy is published as a separate document, not as part of a user agreement, user instructions, etc. The Privacy Policy is also available on the ChinaChat website.

3.3.3 Providing Privacy Setting Options

Provide users with flexible privacy setting options, allowing them to adjust the degree of disclosure of their personal information according to their needs. For example, users can hide sensitive information such as their geographic location and contact list, or restrict certain people from viewing their updates and friend circles. Through these settings, users can better control their privacy and avoid misuse of their personal information.

3.3.4 Strengthen data security protection

Establish a perfect data security protection system, including firewalls, intrusion detection systems and malware protection. These measures can help detect and prevent potential network attacks promptly and prevent user data leakage. At the same time, the server is regularly scanned and repaired for security vulnerabilities to ensure system stability and security.

3.3.5 Establish effective complaint and feedback mechanisms

Social applications should set up specialized complaint channels to facilitate timely feedback from users when they encounter privacy issues. Complaints and feedback from users should be seriously investigated and processed, and timely responses should be given. At the same time, any violation of privacy policy should be handled by the law and regulations to safeguard the legitimate rights and interests of users. Provide ways to inquire, correct and delete personal information ChinaChat will properly accept and timely feedback on users' complaints, and in principle, respond to processing opinions or results within 15 days ChinaChat provides ways to cancel accounts (such as online function interface, customer service phone number, etc.), and promptly delete users' personal information or anonymize it after the cancellation of the account.

4 Feasibility Analysis

Explain the feasibility of the project, such as the technology that can be used to support the design / production of the project, market application prospect, risk analysis, etc.

4.1 Theoretical perspective

The Chinese ethnologist Mr. Fei Xiaotong once put forward the concept of "cultural consciousness": first of all, one has to know one's own culture and understand the many cultures one comes into contact with in order to be able to establish one's own position in a multicultural

world that is already in the process of being formed. To the people of their home countries, Chinese immigrants are like a mirror that is both familiar and unfamiliar. In watching and evaluating the Chinese immigrants' performances of their ethnic identities, the people of their home countries negotiate the latter's asserted ethnic identities. These discursive interactions also prompt the audience to look at themselves from a local perspective, deepening their sense of national self-consciousness.

Although the types of Chinese diasporas and their identities have become increasingly diversified in the context of globalization, their interactions with their countries of origin have also become more convenient and closer. With the rapid development of Internet technology, the online media in the ancestral home countries have become one of the mediums through which the diaspora performs the exhibition of ethnic identity and seeks emotional support from the people in the ancestral home countries. The Internet media relies on Internet technology. It can help individuals realize from "physical absence" to "online embodiment", thus vividly presenting the close relationship between individuals and the community (Fig.10).

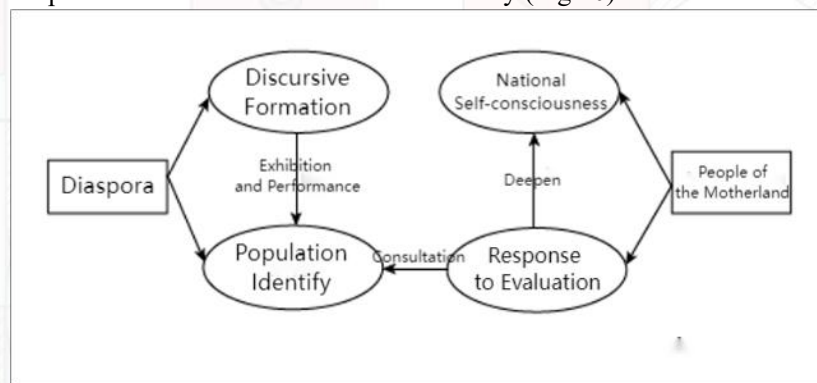


Fig.10 Diaspora's Ethnic Identity Exhibition and Repercussion

4.2 Practical perspective

On June 8, 2022, the Literature and Tourism Industry Index Laboratory, jointly established by China Tourism News, the Chinese Academy of Social Sciences, and the China Public Opinion Survey Laboratory, released a report on the influence of intangible cultural heritage on overseas short-video platforms in 2022 (hereinafter referred to as the "Report"). Based on the publicly available data on TikTok, the Report analyzes and researches the dissemination effect and influence of China's intangible cultural heritage in foreign countries. According to the Report, the total number of video plays of ICH-related content on TikTok currently exceeds 30.8 billion.

In overseas new media research, it is found that in addition to the factors of audiovisual appreciation, cultural commonality and creative novelty, the topics that can attract attention are often characterized by "high participation". In the case of highly popular non-heritage topics, such as martial arts, Chinese New Year and dragon dance, there are two major phenomena of high

participation: 1) strong interaction and communication; and 2) a large number of video creators. Interactive communication is reflected in the fact that netizens can carry out a series of interactive operations such as liking, commenting, sharing, etc., rather than just enjoying the solo pleasure by themselves. To a certain extent, this can be achieved through the subjective efforts of video creators, such as optimizing the creation method and actively responding to the interaction of netizens. For example, the Chinese New Year is reflected in the fact that "Chinese people all over the world celebrate together, and people all over the world enjoy the blessings". The large number of video creators is reflected in the fact that more and more Chinese people are posting their own experiences of traditional Chinese culture, and more and more foreigners and overseas Chinese are posting their own experiences of traditional Chinese culture. For example, Austin, an international student from Togo, had his dragon dance video become popular. Austin said that he made many Chinese friends through the dragon dance, understood more about China and Chinese culture, and re-understood himself.

5 Innovation

This app, designed for Chinese people, is unique in its innovations and loved by users. First of all, it cleverly combines the essence of modern technology and traditional culture, allowing users to enjoy the convenience and novelty experience brought by high technology and at the same time deeply feel the charm of traditional Chinese culture.

The innovation of this app lies in its unique VR scene design. Through advanced virtual reality technology, users seem to travel through time and space, and are in all kinds of scenes in ancient China. Whether it is a bustling ancient city, a quiet countryside, or a solemn palace or temple, they are all perfectly presented in the VR scene. This immersive experience allows users to enjoy the beautiful scenery at the same time, but also a deep understanding of the customs and cultural practices of ancient Chinese society.

In addition, the app also introduces an AI assistant as the user's guide and interactive partner, which not only has rich knowledge of traditional Chinese culture, but also provides personalised guides and recommendations according to the user's interests and needs. Whether it is the explanation of historical events or the interpretation of ancient literature, the AI assistant can help users understand the connotation and essence of traditional Chinese culture in a vivid and interesting way.

It is worth mentioning that this app also focuses on the user's interactive experience. Users can freely explore in the VR scene, interact and communicate with the AI little assistant, and even participate in some virtual cultural activities, such as calligraphy, painting, tea ceremony and so on.

This interactive learning method not only allows users to learn traditional culture in a relaxed and pleasant atmosphere, but also enhances their interest in and love for traditional culture.

In addition, this app is highly personalised and customised. Users can choose different themes and scenes to explore and learn according to their own preferences and needs. At the same time, the app also intelligently adjusts the learning content and difficulty based on the user's learning progress and feedback, ensuring that the user can continue to progress in a learning environment that suits them.

Finally, the app also features cross-platform use. Whether it is a mobile phone, tablet or computer, users can use this app to study anytime and anywhere. This convenience not only facilitates users' learning, but also expands the scope of use of the app, so that more people of Chinese descent can benefit from the traditional cultural learning experience brought by the app.

To sum up, with its unique VR scene, intelligent AI assistant, rich interactive experience and personalised learning mode and other innovative points, this app designed for Chinese people provides a new platform for Chinese people to learn traditional culture. It not only gives new vigour to traditional culture, but also enables the ethnic Chinese crowd to better pass on and promote their ethnic culture while enjoying the convenience brought by modern technology

6 Summary and Plans

At first, we wanted to make a software that could spread Chinese culture, but there is no shortage of Chinese culture promotion in China, so we thought about foreign citizens of Chinese origin. Through searching the materials, we found that many foreign citizens of Chinese origin have cultural exclusion psychology. They reject Chinese culture in order to get the recognition of foreign people. They are unwilling to speak Chinese or even admit that they are Chinese. Therefore, we want to design a social learning software for foreign citizens of Chinese origin, so that they can not only learn traditional Chinese culture knowledge, but also communicate with other Chinese people. We know that only words, pictures and videos can not attract their interest, so we connect this software with VR, so that Chinese people can personally experience the lively atmosphere of traditional Chinese festivals. Experience the magnificent rivers and mountains of the motherland with your own eyes, and experience the production process of the four treasures of the study. In this way, we hope to arouse their national pride and at the same time realize the spread of Chinese culture on the world stage. However, the final presentation of our project requires the support of VR technology, which means that the project is expensive, so it may not be immersive experience for ordinary families. In addition, our technical level also needs to be constantly updated to support the continuous upgrading of the software content and the diversity

of the software content, and we hope to realize that overseas Chinese can use it like TikTok and YouTube.

Summarize the design process and content of the project, analyze the advantages and disadvantages of the project, and put forward the future plans.

7 Team Profile

It includes details of team members (including photos), project division, entry speech, etc.



Name: Anjie Wu

Project Division: As the team leader of the project, lead and organize the progress of the whole project, propose the design plan, design part of the software page layout and function, and communicate with the coordinator.

Entry Speech: I hope that one day overseas compatriots can proudly say that I am Chinese, and can proudly promote Chinese culture to others!



Name: Qian Xu

Project Division: Responsible for the design of the four treasures of this project and present the analysis results based on the process of design methodology in the report.

Entry Speech:

Awaken your national pride, regain your cultural identity, and explore new possibilities for overseas Chinese identity with "ChinaChat" (C-Chat)!



Name: Hongyuan Bu

Project Division: Responsible for project background investigation, pain point analysis, feasibility analysis, product introduction, Logo design, and final integration and proofreading of slides and project design reports.

Entry Speech: I hope that one day Chinese culture can stand at the center of the world stage and make all Chinese people proud of their own culture!



Name: Chen Yang

Project Division: As a page designer, I will focus on the visual presentation and user experience design of the app interface, ensuring that every detail reflects the aesthetics of culture and the convenience of function.

Entry Speech: I am committed to conveying the unique charm of culture through exquisite design language, enhancing the reading and interactive experience of users, and letting design become a bridge connecting users and culture.

