The Design of Face Check-in Scheme on Conference Industry

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Abstract. The application of face check-in scheme has a positive impact on the conference industry, which can improve the service quality of the exhibition industry, strengthen the MICE activities site management, and boost the deeper development of the Intelligence exhibition. The API of face check-in scheme provides five interface, which named the conference operation interface (it is used to create and modify meetings), the conference information inquiry interface, the user registration interface, the face verification interface, and check-in status feedback interface. It can be effectively realized the conference forms publishing and managing, and fill in the registration form online, free check-in APP, unified management of check-in data and other functions.

1. Introduction

With the advent of the information era, the exhibition industry develops rapidly. Among them, the development trend of the conference industry which belongs to the exhibition industry is great. In a broad sense, the conference industry carries out conferences and activities by means of scale, centralization and modernization. It grows with the development of the market economy. In recent years, the rapid development of relevant information technology has had a tremendous impact on the transformation and upgrading of the industry. Currently, the evolution of biometric technology is strong. Face recognition technology has matured. The face check-in scheme is gradually being applied to quite a few activities, such as meeting sign-in, annual meeting sign-up, salon sign-in, training sign-in, event sign-in, class sign-in, conference sign-in, contest sign-in, etc. It achieves high efficiency of staff management and forms detailed statistics. In this context, it is of great practical significance to strengthen the face sign-in exhibition scheme.

2. Basic concept of face conference check-in scheme

The face conference check-in scheme uses zero-cost development throughout the entire process. Provide with the fulfill creation of the conference, conference registrations, on-site face sign-in, data information platform, the scheme can be applied to the organization and management of offline meetings, to improve the management efficiency and user experience of meeting activities. In the event registration process, developers combine information technology such as AI and big data, and release a meeting. Invitation, registration of participants' personal information, sign-in at the meeting, background data information statistics service, and in accordance with the scenario requirements of the meeting activities, provide a variety of personalized face venue check-in solution, to name only a few, large screen face recognition, gate face recognition and many other check-in modes, to make the conference activities have a better experience. The application of face check-in scheme has a positive impact on the conference industry. First of all, the scheme can improve the service quality of the convention and
the exhibition industry. The customer is the core of the service industry, the third pillar industry of the convention and the exhibition industry. The service quality of the traditional convention and exhibition industry in the exhibition activities is relatively deficient.

Combined with the face sign-in scheme, users can better experience the conference activities, to accelerate and improve the progress and efficiency of the entire process of conference activities, so as to improve the service quality of the entire conference, and to improve the service quality of the conference and exhibition industry. There is one more point, the application of face sign-in scheme can strengthen the on-site management of exhibition and conference activities. In the conference and exhibition activities, face sign-in scheme can strengthen management ability. Through its powerful database, the program can analyze the personal information data of each user and effectively figure out the emergencies of on-site management and even the unexpected events of exhibitions. Face check-in scheme is widely used in the conference and exhibition industry, which optimizes and upgrades relevant modules such as conference and exhibition services and management. And it has a greater power to adapt to the trend of wisdom for the exhibition and the conference industry. The continuous development of the Internet + era, and the convention industry gradually developed from traditional exhibition to information technology and exhibition intelligent, it has greatly promoted the sustainable development of the exhibition industry and its transformation and upgrading.

3. The association function of large-scale network face conference check-in scheme technical interface

3.1 Conference operating interface
The conference operation interface is mainly used for creating meetings and updating conference content, relationship. Calling the conference operation interface can set the content of the conference, such as the conference title, the conference theme and so on, and can effectively manage the prompt copy and background pictures of users who successfully otherwise failed to brush their faces on the free sign-in APP.

3.2 Conference information query interface
The conference information query interface is mainly used to obtain the detailed information of a meeting. The information acquired is relevant to the meeting created when the developer calls the conference interface. It is convenient to grasp the specific situation of the meeting and to deal with the unexpected situation in time.

3.3 Face registration interface
The registration interface is mainly used to receive the pictures of face information uploaded by developers. (Developers can develop their own H5 page for user registrations, insert the face image of acquisition control, and then conveniently call the user registration information collected by the face registration interface.)

3.4 Face verification interface
Face Verification Interface is mainly used to verify the authenticity of the user information and to brush face and check in. Customers need to develop host service to forward APP requests. For Example: the host address format is schema://host[: port#/]path/.../

3.5 Check-in state feedback interface specification
The check-in state feedback interface is mainly used to feedback the check-in status of conference users. The check-in state feedback interface is mainly used to feedback the check-in status of conference users. Calling this interface can obtain the status information of the customer check-in and all the information that the user fills in when registering, understand the general situation of the participants, and play a good role in the management of conference activities. Of course, for the use of
check-in state feedback interface, the organizer can do personalized action such as check-in wall, lottery, etc. to meet the needs of different scenarios of the conference, increase the interaction between participants and meetings, and enhance the user experience.

3.6 Check-in state feedback interface specification
Users who use Face Check-in Active Push Service need to provide some standard data receiving address (the data receiving address specified when the host creates the meeting).

4. Functional of face check-in scheme

4.1 Conference form publishing and management
In the scheme, the organizer can customize the content of the form required for the registration of the event according to the conference activity (for example, the conference title, meeting time, the meeting venue and other conference related content). Then it will be published online and extended to the majority of users. This facilitates the organizers to understand and master the participants' information data in time, and to collect and organize the participants' information data efficiently and conveniently.

4.2 Fill in the registration form online
Participants can complete the entry of the information registration, register information and acquire two-dimensional code by filling in the registration form online. This enables real-time dialogue between the host and the user. Participants register online anytime, anywhere, to close the distance between the participants and the sponsors, adding interactive elements, laying the foundation for the later sponsors to provide a better service for attendance.

4.3 Free sign-in to APP
Free check-in to APP supports a variety of modes of check-in, such as face-brushing check-in, two-dimensional code, etc. Only the iPad (ipad4, mini2) device is needed to complete the check-in operation. The scheme provides various forms of matching check-in choices, and plays a convenient role for participants to verify their identity information, and the quality of service of the organizers has also been improved.

4.4 Conference operating interface
Backstage management forms and check-in data, with a comprehensive improvement of the efficiency of activity registration and check-in data analysis, can better respond to the emergencies of exhibition activities, the first time to respond. It can also predict the future trend of exhibition activities and promote the sustainable development of conference activities.

5. Successful cases of face conference check-in scheme

5.1 Conference operating interface
In 2018, the 14th China exhibition economic cooperation CEFCO conference was successfully held in Qingdao, China. The participants of conference came from 18 overseas countries and regions. In all, about 1000 participants attended the conference. The conference is different from the usual, and the committee of the conference has adopted face check-in scheme to solve the problem of sign-in. This system is jointly designed by Baidu artificial intelligence team and Kunlun, the official registration service provider of the conference, for BBS.

Kunlun has been cooperating with baidu since December 2017, and joined the baidu AI ecological partner program. This plan is applied to the latest generation of "e zhan tong" registration system developed by kunlun. And the conference was customized on-site attendees registration, a new generation of supporting hardware self-service face recognition and the certification machine and face recognition sign-in system for registering personal information. This system has been well received.
by the audience and exhibitors. Not only greatly reduced the waiting time of the audience, but also avoided the bad phenomenon of in the traditional exhibition. Not only greatly reduced the waiting time of the audience, but also avoided the bad phenomenon of in the traditional exhibition. And lay a good foundation for the sustainable and in-depth development of the conference.

5.2 Face check-in scheme for industry conferences
The 2018 China IT leaders summit successfully held in Shenzhen, China. Face recognition is the most important part of the summit’s security system, including many emerging black technologies. In this summit, all staff, participants and even relevant media reporters need to apply by email in advance, getting the invitation code from the summit organizing committee, submit personal information and photos according to the prompts on the page, and then you can enter the meeting site to attend the meeting after you check in by scanning your face ID. Enter the meeting site to attend the meeting after you check in by scanning your face ID. In addition, participants also need to verify their personal identity face information before entering the venue.

In particular, this summit adopted the intelligent conference face recognition system. After the participants arrive at the scene, the system's camera can automatically capture the participants' profile picture, conduct information comparison, and after successful comparison, in the identification window, the word "successful" and the information of participants will pop up automatically, and the relevant certificates of participants will be printed out. Face check-in scheme realizes the unity of people, time and space, which greatly improves the efficiency of the meeting and ensures the safety of summit participants.

5.3 Academic conference application of face check-in scheme
The symposium of Zhejiang association of traditional Chinese medicine was successfully held in Hangzhou, China, this academic seminar invited the first group of famous Chinese doctors from Zhejiang province to give special lectures. There were about 500 people signing in at the main venue, and different channels were set up according to the identities of the guests. Besides, for the Chinese food and dinner check-in of this academic seminar, participants are also required to quickly identify their identities by scanning their face ID. The reception information of VIP guest scholars will be pushed in a real time, and the one-to-one reception service will be provided.

According to the identities of different guests, conference halls were divided into several different channels, for example, 2 representatives, following the channel of education center, etc. After arriving at the conference, scholars attending this academic seminar need to scan the face for recognition according to their personal identity information and then sign in. The average time is 5 seconds per person. After the successful identification of participants, the seminar site can print label paper to complete the personal registration. Face sign-in scheme is a more accurate way to identify attendees through face recognition. It provides the guests and scholars with more humanized and more detailed services, and greatly improves the service quality and management ability of the academic seminar.

6. Conclusion
The rapid development of face check-in technology has had a huge impact on the conference industry, which provides attendees with a better experience, improves the service quality of the whole conference, and improves the flexibility and safety of the conference. The rapid development of face check-in technology has had a huge impact on the conference industry, which provides attendees with a better experience, improves the service quality of the whole conference, and improves the flexibility and safety of the conference. How to prevent face detection face detection algorithm attack, how to deal with the uncertainty of face image acquisition process, face plastic model uncertainty. How to prevent face detection face detection algorithm attack, how to deal with the uncertainty of the process of face acquisition, face plastic model uncertainty and so on the need to be considered. With the development of an emerging field, along with opportunities and challenges, relevant government departments should strengthen the management of this technology field, unify the standards of this technology field, and
determine the entry threshold. Relevant policies and regulations should be issued to regulate the technical field, promote the transparency, rationality and legalization of the technical field, and better serve the development of the conference industry. In accordance with the general trend of intelligent exhibition, I believe that face recognition technology will greatly contribute to the sustainable development of the conference industry.

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