Smart education in China is currently in the exploratory stage. Since 2019, the Ministry of Education launched the "Smart Education Demonstration Area" project, which opened up the education innovation exploration and practice in eight areas. In the past two years, some preliminary results have been achieved in smart education exploration. Experts from the eight areas shared China's stories and experiences in the smart education construction at the “New Ecology of Regional Smart Education Forum”.

What is the Background of Developing Smart Education in China?

The technological revolution and industrial transformation are redefining the value of human knowledge and abilities, which put forward new requirements for education, profoundly changing the concept and forms of education, and models of educational governance.

Smart education is a new evolution of education in the intelligent era. The traditional Chinese educational concepts and models cannot meet the needs of the intelligent age, and the original innovation ability of the talents is insufficient. Within this context, China issued a series of policy documents to promote the development of ICT in education to support education modernization.

What is the Goal of Developing Smart Education in China?

China has always striven to achieve more open, suitable, humanistic, equal, and sustainable education. The goal of China's development of smart education is to develop innovative talents and promote educational equity.

How did China Do to Develop Smart Education?

Innovating Education Evaluation

China Smart Education Demonstration Area utilizes smart technologies to accurately
understand every student and develop personalized learning programs. Hereby, “Digital Portrait” is created to innovate the evaluation system and understand students. Digital Portrait is an information profile reflecting students’ academic, physical or mental characteristics.

Take Shenzhen Welkin School as an example, the learning assistance system and personal learning feedback mechanism process students’ homework outcome data and forms each student’s digital academic portrait. Then, personalized learning resources and homework are intelligently recommended to the student according to his/her learning characteristics.

Using the evaluation instrument of Digital Portrait, students’ instructional plans for different subjects can also be designed accordingly. For example, to design an appropriate physical training program for each student, schools in Beijing Dongcheng District formed students’ digital health portraits via health management platforms and growth files of their physical examination data.

**Innovating Education Model**

The traditional Chinese education model emphasizes basic education. However, the intelligent era needs more compound talents with creativity and practical ability. Recently, Chinese authorities have introduced a set of guidelines to free students from excessive homework and off-campus tutoring, and spend more time and energy on their creativity development.

Hence, the Smart Education Demonstration areas develop extended learning instead of single teaching activities. Tianjin Hexi District published 58 different extended training courses on the network platform, including Peking Opera, Tea Art, and Astronomy. These courses are freely open to students. Besides, in Beijing Haidian District, virtual laboratories and maker spaces are set up to cultivate students’ practical and hands-on abilities. The applied cloud platforms enable students to explore and develop their potential creativity anytime and anywhere.

**Cultivating Information Literacy**

Information literacy mastery supports smart education management. China adopted online and offline methods to improve the information literacy of teachers and students.

In Wuhan City, Hubei Province, there are 164 famous teacher studios and 768 curriculum communities built on the Wuhan Education Cloud Platform, promoting teacher professional information literacy growth. Apparently, the high-level construction of smart education infrastructure helps to cultivate school stakeholders’ information literacy.

Compared to Wuhan, the software and hardware foundation of Xiong'an New Area, Hebei Province is weaker. It adopts the “bringing in” and “going out” strategy based on local conditions. Educational administrative cadres and principals are encouraged to learn from successful experience in developed areas. Meanwhile, external experts are hired to bring professional training courses. Not only did Xiong'an New Area carry out large-scale training for more than 16,000 existing teachers, but it also increased written examination and interviews for above 4,000 new teachers. This series of measures have effectively enhanced teachers’ and managers’ information literacy in smart education.
**Sharing Educational Resource**

Under the background of smart education, "Internet plus Education" is popular since it breaks time and space limits, and achieves resource sharing. According to “ICT in education action plan 2.0” promulgated by the Ministry of Education, the "Internet plus Education" service platform for lifelong learning will be developed to realize the excavation and service of educational resources.

Thereby, Wuhan, Hubei Province, innovated resource supply mode at primary and secondary schools. To share high-quality educational resources, it developed online learning resources with the whole subject curriculum system as the core and the syllabus and teaching progress as the goal. Such actions got a high evaluation from students and parents.

China's demonstration areas gradually accumulated and formed Chinese experience in smart education development. Innovation and inequity issues are prominent in China. By establishing "Smart Education Demonstration Areas", China sets a typical example to the world. Radiating to the surrounding areas from selected areas, and then driving the educational development of less developed areas, is of great reference significance for other countries to promote smart education.