The Impact of the New Crown Epidemic in 2020 on Online Education

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Abstract: The novel Coronavirus outbreak in early 2020 disrupted people's normal life and caused many middle and primary schools and universities in China to postpone their return to school one after another. The central government called on all places to implement the policy of "suspending classes and never stopping school". All of a sudden, online education has exploded. This paper focuses on the comparison of the development overview of online education around 2020, the growth trend and causes of online education, and the data analysis of the blowout growth of online education during the epidemic period, and predicts the future development trend of online and offline education.

1. Overview of online education

Online education is e-learning. Its general concept comes out about 10 years ago. Xiao Gang, the learning coach of zhixingtang, defines e-learning as: Through the application of information technology and Internet technology content dissemination and rapid learning methods. The "e" of e-learning stands for e-learning, efficient learning, exploratory learning, experiential learning, extended learning, easy-to-use learning and enhanced learning. The United States is the birthplace of e-learning, and 60% of enterprises carry out staff training through the network. After 1998, e-learning has risen in the world, and expanded rapidly from North America and Europe to Asia. More and more domestic enterprises are interested in e-learning and begin to implement e-learning solutions.According to the American Association for training and development (ASTD), by 2010, 90% of the companies with more than 500 employees will adopt e-learning training. E-learning is becoming the right choice in the era of knowledge economy. It should be pointed out that e-learning is not only a kind of technology, but also a means of transmitting content. What is important is that it itself and the great changes generated by learning. This is the main significance of e-learning.

The new crown epidemic has seriously affected the normal learning and life of the majority of students. Under the call of the Ministry of education to "suspend classes without suspension", with China's powerful mobile Internet infrastructure, all primary schools, middle schools, colleges and universities, together with domestic educational institutions, have moved the classroom Online to meet the actual learning needs of the majority of students. From the broadcast classroom during SARS in 2003 to the blooming of online education today, China's online education industry has been developing continuously, and the emergence of the epidemic has forced a great leap forward in the education industry. This will be a milestone in the online education industry

2. The development of online education in recent years
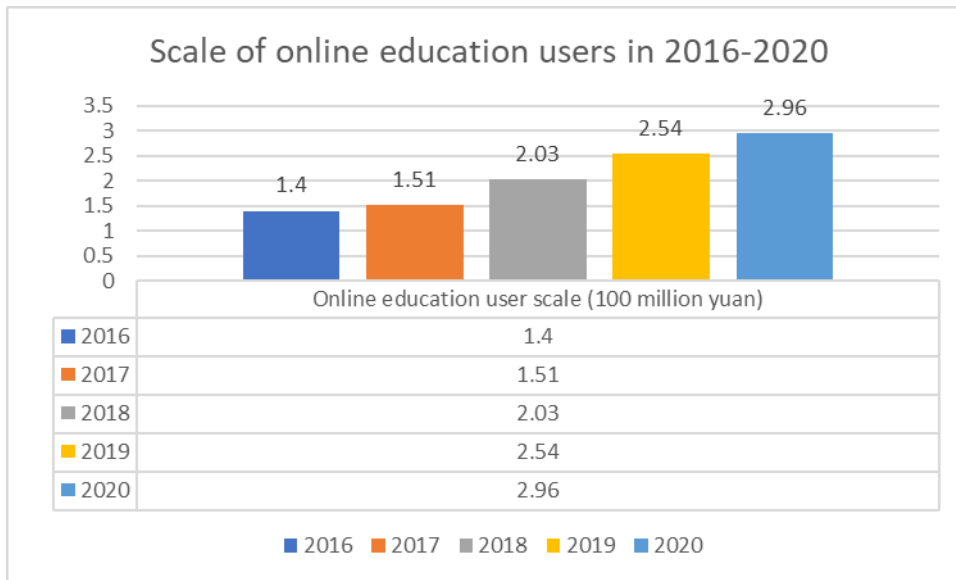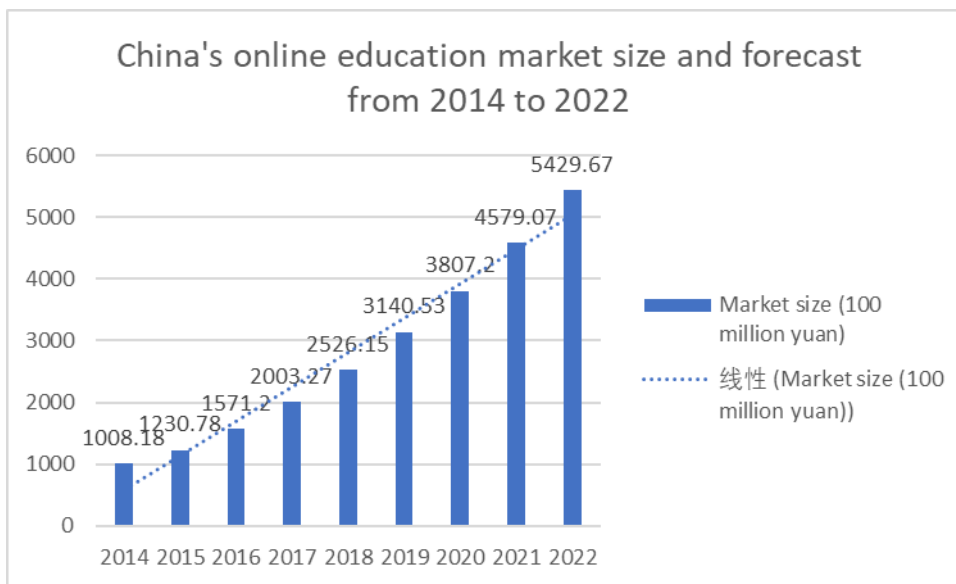

Figure. 1

Figure. 2

Data source: CIC Industrial Research Institute

It can be seen from the relevant charts that the number of users and the market scale of online education have increased year by year in recent years, and it can be predicted from the data in the figure above that online education will have considerable market potential in the next few years or even decades, and its development will bring education in China and the world into a new era.

3. An analysis of the causes of the growth of online education

On the one hand, advantages of online education:

3.1 Resource utilization

All kinds of educational resources have crossed the limit of space distance through the network, which makes the school education become an open education which can extend beyond the campus to a wider area. Schools can give full play to their own discipline advantages and educational resources advantages, and spread the best teachers and best teaching results to all directions through the network.

3.2 Learning behavior

The application of network technology in distance education has the following characteristics: anyone, any time, any place, starting from any chapter, learning any course. The convenient and flexible "five anything" of online education directly reflects the characteristics of active learning in the learning mode, and fully meets the needs of modern education and lifelong education.

3.3 Learning form

The all-round communication between teachers and students, students and students through the network, shortens the psychological distance between teachers and students, and increases the opportunities and scope of communication between teachers and students. And through the statistical analysis of the type, number and frequency of students' questions, teachers can understand the doubts, difficulties and main problems encountered by students in learning, and guide students more pertinently.

3.4 Teaching form

In online education, the unique information database management technology and two-way interactive function of computer network are used. On the one hand, the system can track and record the individual information, learning process and stage of each online student. On the other hand, the teaching and learning service system can provide personalized learning suggestions for different students according to the personal data recorded by the system. Network education provides a practical and effective way for personalized teaching.

3.5 Teaching management

The teaching management platform of computer network has the functions of automatic management and remote interactive processing, which is applied in the teaching management of network education. The consultation, registration, fee payment, course selection, inquiry, student status management, homework and examination management of distance students can be completed through the network remote interaction.

On the other hand, the government's policy support for online education, especially during the epidemic period, has issued guidance documents on online learning, so as to achieve the state of "no suspension of classes and no suspension of school".

4. Offline education was completely stopped during the epidemic

For offline institutions: all localities have stopped teaching in training institutions

For schools: affected by the epidemic, the resumption time was further delayed

For the state: mobilize public resources, combined with the major online education platforms, support the suspension of classes without suspension.

5. The market penetration rate of online education is increasing rapidly

In early 2020, there was an outbreak of COVID-19 in China. The Ministry of Education, unable to resume class's offline, called for "suspension of classes" during the epidemic. In order to ensure the efficiency of students studying at home, combines the condition of local education, the Ministry of Education actively mobilize the national education resources, organization contacted 20 online course network platform, open nearly 1300 national excellent courses and 400 national virtual simulation course and coordinate teaching and education quality district resources.

In this major emergency, offline education and training institutions across the country have been faced with severe challenges and enormous opportunities. Major Offline education platforms have made use of their online platforms to broadcast and record courses. In a short time, the market penetration rate of online education platforms has grown rapidly. The highest cumulative number of users reached 350,000 on that day, and the number of APP downloads reached 230,000. At the same time, as shown in Figure 5, downloads of similar online schools, such as ape tutoring and homework Help, grew rapidly in early February. In recent Days, the single-day download Peak of Xueersi Online School, Homework Help and Ape guidance reached 23.5/135/142,000, much higher than the download scale in previous summer holidays. During this period, the flow in the station showed an explosive growth, which indeed greatly catalyzed the progress of the industry. It can be seen that although the epidemic has forced offline education to stop, it has also prompted the further development of online education, which is both a challenge and an opportunity.
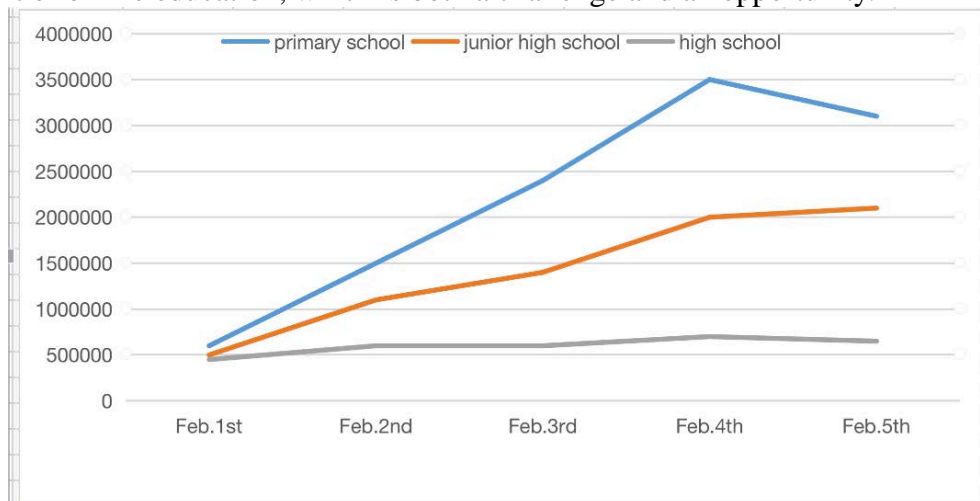

Figure. 3 Total person-time of the recent free classes in the primary and secondary schools

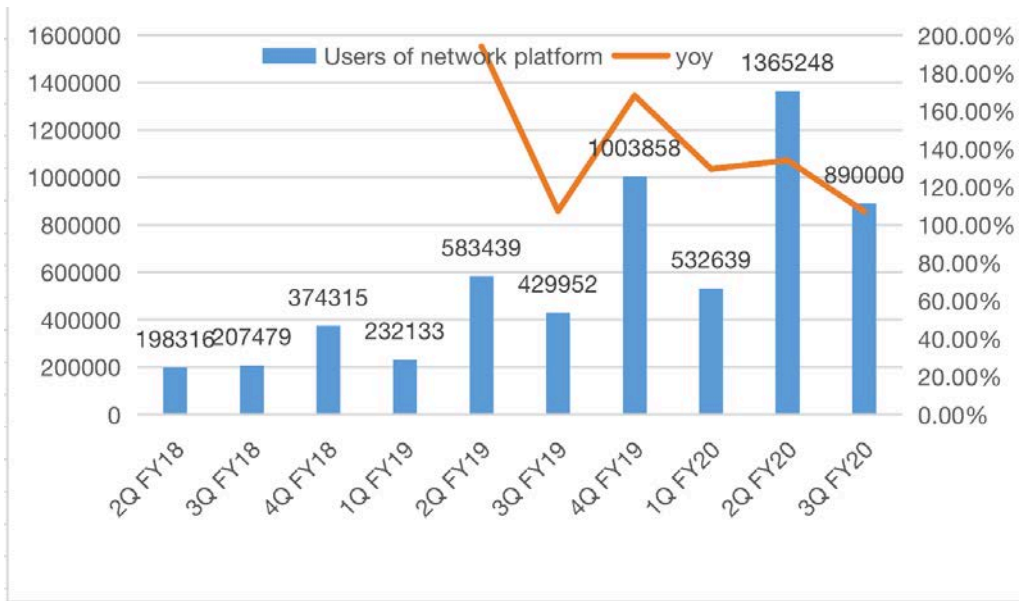Data sources: Xueersi Online School APP, Oriental Securities Research Institute

Figure. 4 Users and growth rate of Xueersi Network Platform (%)

Data sources: Xueersi Online School APP, Oriental Securities Research Institute
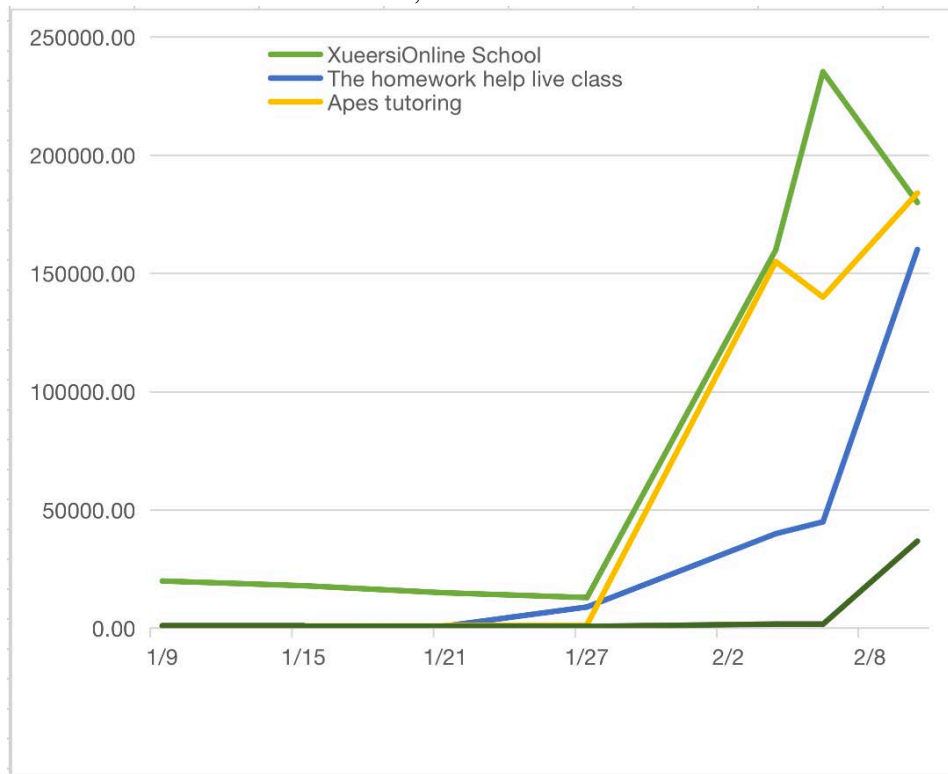

Figure. 5 Online education downloads increase significantly

Data sources: Qimai Data, Oriental Securities Research Institute

6. Cause analysis of online education blowout

6.1 Leading education platforms: In recent years, online education has accumulated advantages in the early stage of development

We have seen that Xueersi is the most rapid in the response to the epidemic, and its execution is outstanding.Compared with other online education institutions, Xueersi online school was the first to announce the provision of free courses nationwide, the first to start the course broadcast, and the first to enter the official channels such as Qiangguo and Zhongguo video. This has something to do with the large class experience accumulated in the early stage by Xueersi as a leading enterprise of training institutions.

6.2 Strong support from the government: strong entry to the central video, learn strong country and other official websites

Official strong support, online big class organizations multi-channel distribution. Online education is available on official media such as "Learn from China" and "Central Video". Continued ape guidance, homework help and high way classroom have entered the Qiangguo and central video and other official channels. "Given the negative impact of the epidemic on students.Online education platform and Xueersi online education platform jointly launched a free live streaming course and provided free live streaming course covering the whole subject from first grade to third grade of high school and master literacy course. Xueersi online school also became the first online education institution to enter the platform to learn from Qiangguo during the epidemic period.As a catalyst, the epidemic has catalyzed the development of the online education industry, from which we can see the new trend of education in the future.

7. Future trend: "online + offline" dual track parallel

In recent years, in the context of the rapid rise of the Internet, "Internet + education" has also emerged. In the field of education, the Internet has outstanding advantages. For example, the online teaching method is not limited by time and space, and the network can be used to present an abundant and interactive teaching method. Furthermore, online education can integrate educational resources to the greatest extent and at low cost to improve the quality of education and teaching. In view of this, big data of the platform is further utilized to analyze students' learning situation and master knowledge points, so as to provide personalized teaching for students. And these are offline education can not achieve. However, online education also has its obvious shortcomings. For instance, for some students who are not self-conscious, it is increasingly difficult to ensure their learning efficiency by using electronic devices at home. In addition, the equipment platform required by online education is not well mastered by every teacher at the present stage. Although teachers actively and passively accept this approach during the epidemic, there is still much space for improvement to achieve the true standardization of online education popularization. Therefore, combining the advantages of online education and offline education and complementing each other may be the new direction of future education development. Students can not completely break away from the offline face-to-face teaching, but also need to combine online education integrated resources, teachers can use the network big data, timely grasp each student's learning situation, improve teaching efficiency. Of course, how to combine this "dual-track" teaching method, when to use the line, when mixed teaching, still needs further research.

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