

# Campus Express——Digital Transformation for Legacy Businesses

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## ABSTRACT

This article presents a new business idea in the online education area. Since educational services for college students are still limited, online educational services can enhance the quality of learning. Campus Express is a digital platform that aims to offer online educational services for college students. Students are able to raise academic questions, take courses offered by famous professors, and chat with their classmates by using this platform. Students who recharge to become VIPs can not only get better answers for their questions and but also enjoy other advanced services. Professors and students who answer questions will receive money paid by the questioner. At the same time, the platform invites professors from well-known universities to provide students professional online video courses. The platform recommends the same type of questions and courses to students by collecting students' data and similar users' searching history to help them find out their misunderstandings and make their learning process more efficient.

**Keywords:** Data, Digital Platform, Education

## 1.INTRODUCTION

In this fast-changing world, digital technologies and science have played a significant role in changing the world. It is widely acknowledged that the Internet changed our world dramatically. It introduced us to a new era of digital platforms. In China, there are many influential digital platforms, such as Tencent (an Internet company specializing in communications), Alibaba (an online shopping platform), and so on. These platforms have a great impact on people's daily life, and they expand the demand of consumers to different areas. Let's take WeChat as an example. WeChat is a communication software owned by Tencent. At first, it was just simple office communication software. As the number of users grew, the network effect played its role. More and more sides joined this platform, so the function of WeChat became increasingly comprehensive. There is no denying that there are also many other impressive platforms around the world, such as Twitter, Amazon, Facebook, and Google, which are famous and continuously becoming more and more functional with the growing

number of users and the continuous corporation with third parties.

The essence of a digital platform is to facilitate exchanges by using data. These iconic digital platforms have paved the way for the use of the digital platform business model in several areas. One such area is education. Currently, Zuoyebang and Coursera are two typical digital platforms in the online educational area. Zuoyebang is an online education platform in China. The main users are students from elementary school to high school. They use it as a tool to solve their problems in their homework. While Coursera is a well-known education platform that provides online courses. However, we believe that much more useful services can be invented with the development of digital platforms. In this paper, we offer the current situation of the online education platform, the expected platform effect, and advantages of this platform.

The paper is structured as follows. First, we offer a literature review on digital platforms. Next, we provide background of how digital platforms have influenced the education industry. Then, there is an introduction of the

new business model that creates a different value-creating opportunity in the education area. Finally, we give the conclusion about the digitization of education.

## **2. LITERATURE REVIEW**

### ***2.1 Digital Platform***

A digital platform is a business model that facilitates exchanges. Platform businesses bring producers and consumers in high-value exchanges together. Among their chief assets is data from interactions, that generate value and drive competitive advantage [1]. For example, Didi facilitates exchanges between drivers and riders. Didi is a one-stop travel platform covering taxis, private car rides, shared rides, and other services. All these services emanate from exchanges among different platform users. The educational platform that we discuss in this paper is one such digital platform, wherein exchanges are between students and other users. These exchanges are made in real-time [2]. By doing so, a digital platform not only offers digital services but also digital experiences.

### ***2.2 The “Sides” of the Digital Platform***

Digital experiences expand along with the growing number of platform users. These users can be divided into different groups, also known as “sides,” of a platform. Sides are defined as either “users” or “customers” of the platform [3]. These users or customers can be individuals or business organizations [4]. For example, in Didi’s platform, the sides include taxis, delivery trucks, substitute drivers, insurance, and passengers. As Didi adds these sides to their platform, they also expand their services and digital experiences. Therefore, deciding how many and what “sides” a digital platform are important factors that need to be carefully considered.

Cusumano [5] suggest that choosing the sides of a platform is the first process for building a platform business. Decisions about sides are not limited to choosing the number of sides, but also require determining who will be allowed to participate on the platform. This is a practice that Cusumano [5] and Gawer [6] term as “curating members”. LinkedIn, for example, is designed to allow registered users to maintain contacts they know and trust from their business contacts. Specifically, there are professionals, recruiters, and advertisers that form three other sides. These sides can be beneficial to the user experience or the development of the platform in different ways.

### ***2.3 Network Effect in the Digital Platform***

Network effects occur when the value of a product or service to a consumer is contingent on the number of other people using it [7]. For Facebook, the value of the

digital platform continues to increase as more users and their friends create their accounts on the platform, and their experience and dependence on the platform becomes greater. Network Effects are an integral part of most digital platforms. The larger the network become, the better the matches between supply and demand will be. As a result, there will be sufficient data that can be used to match users’ needs. Great network size generates high value, which attracts more participants and further creates a more value-another virtuous feedback loop that can drive their dominance in the market [8]. Network effect can be divided into direct network effect and indirect network effect.

### ***2.4 Direct Network Effects***

Katz and Shapiro [9] define direct network effects as the direct impact of consumer networks on product value. As the number of users in any one group or “side” increases, all those users are likely to get more value from the growing scale of the network. The most typical example of direct network effects is the telephone. As the number of users increases, people are able to contact more friends or order different types of services by using their phones. When the telephone become increasingly useful and functional, the value of it naturally increases, which perfectly illustrate the direct network effect.

The principle of Network Effects also applies to different types of digital platforms, including Twitter and Facebook. Both platforms have increased user dependency on the product as users continue to produce content and participate. Based on all above, we believe that educational platforms or software can help consumers exchange academic knowledge each other, thus benefiting both users and software.

### ***2.5 Indirect Network Effects***

Indirect network effects exist when the value of a product increases with the greater availability of compatible complementary products [10]. Let’s take Netflix as an example. Netflix is an American company that offers on-demand streaming over the Internet and online rentals of customized DVDs and Blu-ray discs in the United States and Canada. Under the premise of rapid development, Netflix cooperates with a large number of film companies to increase the value of their platform and the ability to attract consumers. For example, their digital platform invites participation from Disney, Warner Bros, Universal Pictures, etc. which contributes to indirect network effects. Then these movie producers form a different side of the platform. As a result, when Disney offers a movie to Netflix, they can get revenue from users who want to watch it. Different from direct network effects, indirect network effects are generated by the activities of different groups of users or “sides” of the digital platform.

We use these concepts to develop the paper which introduces a new educational digital platform. Before we introduce the new platform, we will first provide a brief background about digital education platforms that already existed in China.

**2.6 Background**

There are lots of digital platforms focusing on education all over the world, but most existing digital platforms are primarily designed to address the learning requirements of elementary and secondary school students. Although a few digital platforms also address the needs of college students in China, they are not adequately developed. The typical ones are Zuoyebang and Coursera. In this section, we will provide a brief background of their businesses and focusses.

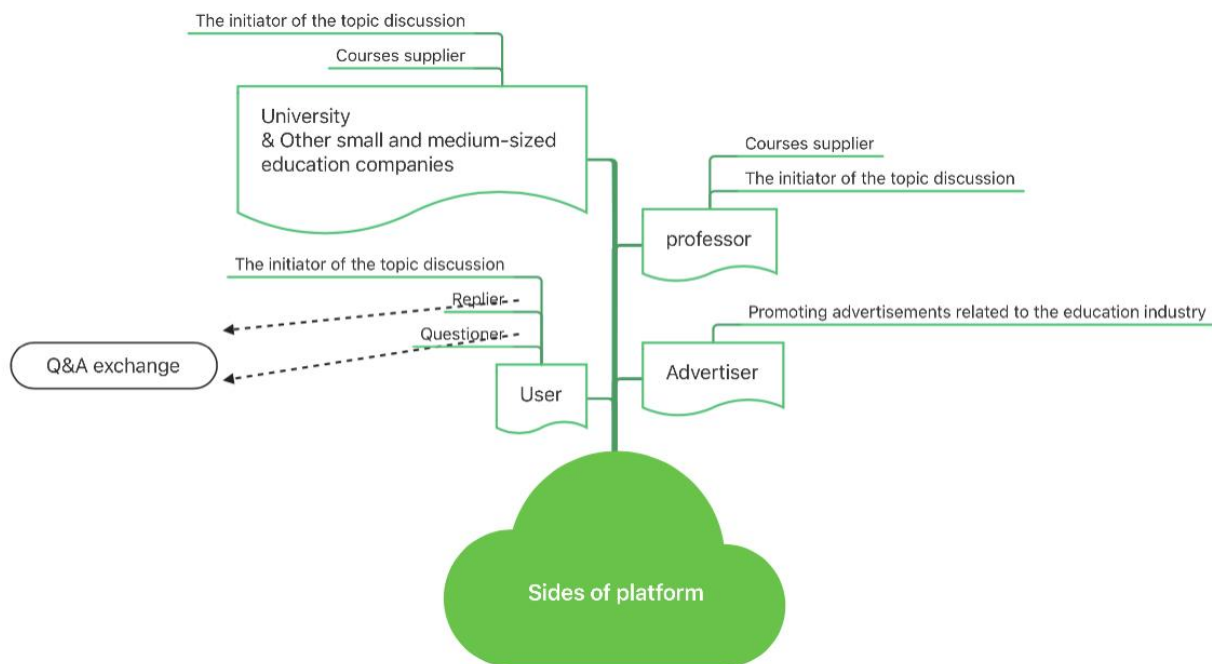
Zuoyebang (Homework Bang Education Technology Co., LTD), an online education app for primary and middle schools, is committed to providing Chinese primary and middle school students with learning counseling services of all subjects. Zuoyebang uses an artificial intelligence (AI) platform, which makes the learning effect visible, and encourages students to further study and explore. On January 15, 2014, Zuoyebang Android was officially released. Within a month, the digital customer of Zuoyebang exceeded 300,000 registrations with a very fast growth rate. On March 19, 2014, about ten days after the official launch of Zuoyebang's iOS edition in Appstore, it ranked first in the education category of Appstore in China. The

growing market size of Zuoyebang makes online teaching an important force for Chinese primary and middle school students to answer academic questions and acquire knowledge. Even if these platforms have great influence, they still have great limitations. The answerers are not professional enough and the professional information that can be obtained is very seldom, so these platforms that exist now are only applicable to students below the university.

Coursera, on the other hand, is a free massive open online course website created by two Stanford University computer science professors. It offers free online courses by corporate with the world's top universities. There are 77 million students using this platform so far. On this platform, students can even earn a bachelor's or master's degree from a leading university online at a much lower cost than studying at schools. However, Coursera only offer online courses provided by universities. This platform is not able to solve specific problems of college students. Also, Coursera does not offer courses that are completely suitable for Chinese university students due to culture differences and language barriers among different countries, even though the platform is designed internationally.

Therefore, a better learning platform for college students needs to be urgently established. We will present our ideas for building a platform to help college students

**2.7 Framework**



**Figure 1** Sides of platform

There are four sides in the platform, including users, small and medium-sized education companies, advertisers, and professors, as shown in Figure 1. The sides of the user, which include the questioner, replier, and the initiator of the topic discussion, will include most people who use this platform. Side of small and medium-sized education companies consist of courses supplier and the initiator of the topic discussion. These companies can assign authoritative professionals to record courses and initiate topic discussions. The side of the advertiser

is to promote advertisements related to the education industry, and further get some benefits from the platform. Lastly, the side of professor will be the initiator of the topic discussion and courses supplier. Different sides will provide our platform with a large scope of services. The more users will use our platform, the more interactive data value is enhanced. Interactive Data refers to all data which is captured or collected on any digital advertisement system using interactive media.

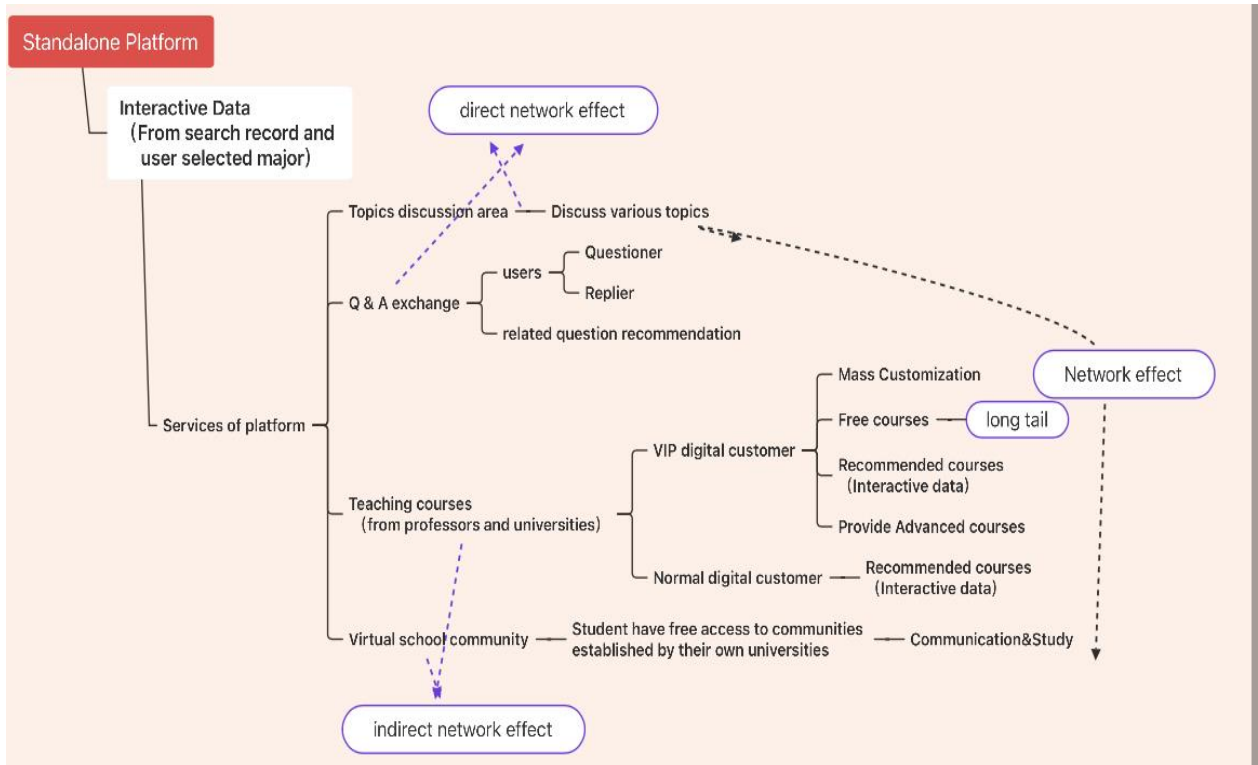


Figure 2 the concept of the platform

Our platform is a standalone platform. It is a single pure digital platform without any physical products. The platform will obtain interactive data from users' searching history, majors, and schools. With Interactive Data as the core, our platform mainly provides four services. By providing these four services, we can collect a large amount of interactive data.

**2.8 Platform Services**

This is a place to encourage students to diverge their thinking. They can ask various of esoteric questions in different industries such as economics, natural science, politics and so on. All kinds of in-depth issues can be discussed here.

**2.9 Q & A Exchange**

This is the area where students can ask the questions, and professionals will answer students' questions. In addition, after questions answered, we will recommend

similar questions through the type of question and related data to help students further think and consolidate.

These two services can help the platform to amplify direct network effects, which means the customers' direct impact on the whole platform's value. The more students ask questions on this platform, the more professional professors will answer questions on the platform, and further, the more users will join our platform.

**2.10 Teaching Courses**

In this section, We will spend money to cooperate with the university to introduce lots of latest courses from famous professors. Then, a VIP channel will be opened and by paying certain fees, users can have the privilege of mass customization. Mass customization is the process of delivering market goods and services that are modified to satisfy a specific customer's needs. This data-driven service can give students' feedback and



suggest topics of interest. Based on the feedback and topics, the platform will do some connections with relevant schools and professors to obtain corresponding courses.

Courses will also be offered free of charge to VIPs . . . What's more, When users need to watch related courses, they only need to search for keywords. If the relative classes cannot be found, platform will fill in the vacancies in time based on the data. Simply because our platform is purely electronic, it can give full play to the advantages of the long tail effect, to ensure that some relatively unpopular subjects can also get a certain degree of coverage. Moreover, platform also recommends courses that may be of interest to users through the collected interactive data. VIP users will also have the right to get in touch with more advanced courses. For a digital customer, we will also recommend the courses offered, but they need to pay for a single course before watching each course, and they will not enjoy the treatment of customized services or cash courses.

### **2.11 Virtual School Community**

Students have free access to communities established by their university. Different from the question discussion area, only the certified students at the school can post, browse and make comments in the community created by the school. Students can meet alumni of the same major in this community. The school can also hold some competitions on this platform. Other school communities can also join the competition to increase students' teamwork ability and collective sense of honor. These two services, teaching courses, and virtual school community will help expand indirect network effects. Indirect network effects are the value of product increase when more sides join in. Therefore, the more schools and professors will join, the more students will know about this platform, which improves the value generated from the platform.

### **2.12 Marketing Plan**

For our app, the main goal is to help college students to solve their academic problems and provide a platform for them to communicate. Our unique focus of developing a variety of functions gives us an advantage over our competitors by giving customers a new outlet to enjoy different educational services on one platform. This marketing plan illustrates our potential customers and the strategies that we use to attract customers. The target consumers are university students. We want to attract potential consumers from different universities. The main goal is to solve problems and correct students' study habits. Therefore, they can improve their study efficiency and reinforce their understanding of knowledge. In addition, we look forward to let college students to meet friends and have discussions on this platform.

### **2.13 Market Analysis**

In China, our platform has relatively few competitors in the market, the quality of online learning platforms is mixed at present. There are only a handful of high-quality online learning platforms, and most of them have expensive courses, poor communication with tutors and lack of interactive feedback. Our platform can meet the needs of college students and enhance the quality of learning.

Next, we will provide strategies for platform development

### **2.14 Market Strategies**

Firstly , the advertisements will be placed in universities' campuses and popular social media platforms. Since our target consumers are students, their purchasing power are lower, so our platform provides these customers with free courses. Specifically, we can first make some advertisement illuminating that we offer them one free video course and five free chances to get answers to their questions. After the consumers use up their chances, they can decide whether to pay the annual or monthly membership fee to get a certain amount of professional people's answers to their questions. If they pay more than 12 months' membership fee at once, the platform will offer them discounts or extra services. Also, different levels of membership are provided. The higher level of the membership the consumers join, the higher fee they must pay, and further the higher quality of services they will receive. The uniqueness of this platform is that it offers students a chance to get closer to professors or experts to answer their questions accurately. Students can receive high-quality answers and study efficiently after they use this platform as a tool of study. In this case, they can meet some friends who have the same interest or choose the same major as they do on this platform. In the platform, they can have a more in-depth discussion, but at the same time, platform will protect the users' privacy by offering an instruction before they enter the application. The users can decide whether their personal information (name, school, gender, question history...) can be seen by other users.

## **3. CONCLUSION**

Based on the research of digital platforms, this paper designs a digital platform that uniquely addresses the need for college students in China to improve their learning. In this digital platform, students can ask questions and get answers on the platform and can also participate in the courses provided on the platform according to their own needs. The solver can make money by answering the questions asked by the students. Teachers who record courses can also get corresponding financial feedback. However, this design still has many

shortcomings. The curriculum needs to be improved. For example, we are unable to track the students' mastery and understanding of the curriculum. Thus, some experiments trials on whether the students have actually learned the knowledge taught in class should be done in the further research. In summary, we sincerely hope the strategy of the educational digital platform in this paper can make a significant impact on the learning of college students and even the development of the whole education industry.

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