Research on Network Informatization Tactics of Continuing Education in Yunnan University under the Background of “Internet +”

Hong-wu Zuo* and Guan-hua Sun

Faculty of Adult Education, Kunming University of Science & Technology, Kunming 650051, China
*Corresponding author

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Abstract. As the application of Big Data and MOOC in the education, the new education normal under the background of "Internet +" appeared, also, the development of continuing education of colleges and universities in Yunnan province is facing new opportunities and challenges. Based on the analysis of the situation on continuing education in Yunnan higher education institutions, this paper expound the function of education informatization construction for continuing education in Yunnan higher education institutions, and aims to put forward the corresponding education informatization tactic, including clear objectives, reasonable planning, business process optimization, big data application of customer information, external construction of learning organization.

Introduction

Since the 21st century, the combination of several techniques, like multimedia, computers, network and data processing, supplies a new opportunity to the development of continuing education and promotes the fusion between continuing education and internet information technology, which also brings new challenges to the development of continuing education. Therefore it is urgent and necessary to advance the application of new techniques to continuing education. At present, China's Internet penetration rate is over 50% and Internet users are more than 700 million. The application of mobile Internet has also been strengthened. It means that people’s lives, work, education, etc. are undergoing an unprecedented profound change and personalized and diversified learning needs gradually highlight. The application of new technologies and learning methods get enough supports form the Internet penetration rate and the rapid growth of the number of Internet users.

In July 2015, the State Council promulgated the “State Council on the active promotion of the "Internet +" action guidance" and put forward eleven key action plans of the "Internet +". The guidance points out the ideas to the field of education that it is encouraged to use digital education resources and education service platform and to explore the new model of network education for schools gradually[1]. Since the "Internet + education" strategy was put forward, which marked China's education was into the period of network-based information technology in-depth changes, the educational content has been renewed, the form of education has been changed and educational evaluation has been diversified continuously. As a result, continuing education will meet new challenges and rare opportunities for development as well.

The most important mission and strategic objectives of Yunnan universities are to accelerate the training of much-needed high-quality technical skills talents. But now the development of continuing education in Yunnan colleges and universities has entered a bottleneck period. It is urgent to reform the Yunnan continuing education guidance of the use of new educational information technology and the "Internet +"
The Present Situation of Continuing Education in Yunnan University under the Background of “Internet +”

Falling behind the Other Provinces

Compared with other provinces, the development of continuing education in Yunnan still stays in the traditional mode. There is a great change in the connotation of continuing education (including information construction) with the development of the external environment.

Strong Competition

Competition is becoming more and more intense, and various forms of education are emerging. Competitions are not only from existing or potential competitors in the continuing education industry, but also from new competitors who provide alternative educational products or services, original partners and all kinds of talent needs departments (large enterprises). This brings great challenges to colleges and universities in Yunnan. They need to rely on "Internet + education" to innovate enrolment system and specialty settings who are traditional and not match with "Internet "

Standards’ Changing

The standard of social, industry and enterprise talent demand in the network information age has changed. The new talent training goal is to require professional and technical personnel with learning and innovation, occupation and life skills, but also to develop information, media, information and communication technology literacy [2]. These new changes will have to require continuing education in Yunnan to get rid of the traditional teaching concept, content, methods and resources. They will have to innovate and change boldly by taking use of network information technology under the guidance of the "Internet + education" as well.

Non-academic Education Appears

In recent years, due to the increasingly diversified forms of learning and other factors, the number of applicants and the enrolments continue to decline in the main colleges and universities in Yunnan Province continuing education (except for nursing professional). Still the quality of students also decreases year by year. According to the statistics of continuing education in some colleges and universities in Yunnan Province in 2015, the number of trainees in non-academic education has increased by almost 5 times compared with the end of the last century, and the number of academic education students has decreased by nearly one quarter. It means that non-academic education is gradually becoming the main choice for staffs in serving. But the reality is that Yunnan continuing education for colleges and universities are focus on academic education, while the development of non-academic education is seldom due to historical reasons and the different understanding and position for non-academic education development. As a result, these colleges and universities continue education mainly construct the management system, operation, teaching management, resource allocation and so on for the need of academic education.

Backward Informatization Construction

Since 1999, continuing education in Yunnan colleges and universities has also carried out educational information construction and application simply, and certain results are achieved. But from the current point of view, the scales of application and information construction are still relatively simple. Technology and standards are still relatively backward. They are limited in teaching management system, portals and so on, it didn’t achieve a wide range of the real integration between education and information technology. This paper considers that it is necessary to follow the guidance of "Internet +" proposed by national section so as to achieve the above objectives. The core idea of the construction and application of Internet and information technology should be emphasized to build our own characteristics and advantages of the school model, brand and service standards.
The Effect of Educational Informatization on the Continuing Education of Colleges and Universities in Yunnan Province under the Background of “Internet +”

In recent years, with the gradual improvement of continuing education in colleges and universities in the province, the pre-construction and investment of computer and network related hardware teaching equipment are basically in place, tangible assets have reached a certain saturation, and the marginal utility has begun to show a decreasing situation. The promotion of its core content construction is gradually weakened. Therefore, the author believes that the further improvement of brand education and service quality in Yunnan colleges and universities under the background of "Internet +" depends more on intangible assets, that is, how to improve soft power content of continuing education to a deeper level such as development, plan, management, quality monitoring, potential market source expansion and excavation and other. We must use the construction of education network information to promote its entire business process reengineering, and should not only be limited to some or part of the business functions; That is to say, it will be benefit to use the new variety of Internet and information technology to help these core objectives achieve. So that intangible assets will become the key of the sustainable development in the future.

Therefore, in the context of "Internet +", the education network construction of continuing education in Yunnan colleges and universities plays an important role in ensuring the sustainable development of the future. It is to establish a new "customer-centric” management service concept and create its own school characteristics, brand, service quality standards, to maintain a good future sustainable development opportunities (shown in Figure 1).

![Figure 1. Network informatization promotes continuing education for sustainable development](image)

Specifically, (1) The theory and technology of educational network informatization will play an important guiding role in the future development of medium and long-term development planning of continuing education in colleges and universities in Yunnan, and will serve as the theoretical basis for the change of management mode under the Internet background. And it is advantageous to take use of advanced concepts to the entire life organization, teaching management, quality assurance, student services, resource construction and other business processes. And then it will help us to attract students, improve the level of teaching management, reduce teaching management costs, improve service quality. (2) the transformation of continuing education in Yunnan from the traditional model to the learning society will get active and effective promotion from the construction of education network information that will help to establish a school-running mechanism with the characteristic of core business process, focusing on unity, rapid response and with its own features of flexible, creative; the construction of education network information can fully tap and find learning needs of customer, so that the future continuing education of Yunnan colleges and universities can not only meet the individual needs of learning better, but also improve customer satisfaction and loyalty, and build a new learning customer life cycle. (3) The use of network information technology means to accelerate the adjustment and change of the development of continuing education of Yunnan colleges and universities in planning, management system, school form, school resource allocation and other important factors. According to customer needs, a new academic education training system and model named "skills + education" will be built. It is
essential to make clear that the key of Yunnan non-academic continuing education at this stage is to strengthen the industry, enterprise personnel training, the guidance of which is career development [3]. (4) Education network information construction will promote the continuous education of Yunnan colleges and universities to gradually reconstruct their own organization and management system, and ultimately to build learning society to meet their own personalized development needs. The continuous education of Yunnan colleges and universities will be promoted to build and improve its own characteristics, brand and service quality through the manner of dynamic feedback adjustment in time and the system of the implementation of control organization management, and the mechanism of sustainable innovation and development.

**Information Construction Strategy of the Continuing Education of Colleges and Universities in Yunnan Province under the Background of “Internet +”**

Under the background of the new application of Internet and information technology, the valid way of building their own school characteristics, brand and service quality standards development model is through the active and effective implementation of education network information construction.

**Education Information Construction will Serve with the Target of Its Own School Characteristics, Brand and Service Quality Objectives**

The reform and development of continuing education in Yunnan colleges and universities cannot be separated from the concept of renewal and should keep the key of establishing a new "Internet +" continuing education development concept. At the same time, education network information construction should get rid of the traditional information construction thought. Yunnan province have to learn the concept of information construction and application from modern distance education pilot university, but also learn the forefront of the concept and technology from foreign institutions of information technology. It is necessary to clear the target, which should be applied in the entire procedure of education network information construction, is the construction of school characteristics, brand and the standard of service quality under the background of the "Internet +".

**Continuing Education should Formulate a Reasonable Information Construction Planning**

The development orientation of continuing education in different colleges and universities in Yunnan is different. The development of educational network information construction is different in different ways. Therefore, we must consider with our own geographical, academic advantages, professional characteristics at first when we draw up the development planning. Secondly, it is indispensable to consider the trend of Internet information technology development. Thirdly, we need to develop a comprehensive information technology plan (including the recent, medium and long-term) to meet our current needs, capital investment, technical staff, etc.. This plan should have operational steps and targets which can be realized and measured. Also the plan can be revised its own educational network information plan according to national policy, social needs change, the future development of continuing education and other factors.

**Digitization of Business Process and Optimization of Educational Decision**

Universities in Yunnan should integrate continuing education information construction with enrollment, teaching, management, services and other business closely. Through the construction of educational network information, we gradually analyze and simplify the business processes such as enrollment, finance, teaching, student status management, student service and data information storage by using the large data method technology to analyze the relevant data requirements and core business processes. Through the use of relevant data model, the continuing education of data-based information could be analyzed scientifically so that management decision-making level can grasp and manage the entire business system operation accurately, who could take appropriate measures to adjust in time. Finally, an adaptive resource adjustment and distribution function of the negative feedback closed-loop system would be formed.
One of the Obvious Features of the Internet Environment Is Big Data

It is defined as a data set whose size is beyond the acquisition, storage, management and analysis capabilities of traditional database software tools [4]. Compared with traditional data, it embodies a fast collection, processing and use of complex information capabilities. Continuing education can collect a large number of rich, valuable customer information. We should pay attention to the education network information construction in the large data applications. These can be the basic work of other aspects of the application of the continuing education.

(1)Due to historical and technical reasons, all kinds of data information has accumulated for a long time, large amount of data has scattered in different departments of different systems. Therefore, we should consider the "Internet +" environment of the business sector and management decision-making directors on the changes in the demand for data at first and choose the appropriate data processing rules for different types of field data. The clean business data will be imported into the system of planning and construction. Data information which scatters in several data source should be put together into a central database. The transfer and sharing of data resources between customers, teachers, and managers is available in the control of the security rules [5].

(2)The customer is an important resource for the survival of continuing education in colleges and universities in Yunnan, so it is very important to provide a good job for customer of relative services. The customer information collected by continuing education includes not only personal basic information, but also potential and valuable information as personal qualifications background, interpersonal relationships, academic qualifications and knowledge needs. A comprehensive, dynamic and real-time customer database could be set up based on that useful information. Thus, customers’ information will be monitored and exploited entirely in order to achieve a comprehensive view of customer information and demand simulation.

(3)Needs and experience of customers is the important reference for constructing their own quality of service of continuing education of colleges and universities in Yunnan. It is worthy to pay attention to distinguish between different professional background customer needs and experience.

Built External Learning Organization by the Use of Internet and Information Technology

In the situation of the "Internet +" environment, the interaction between continuing education and external organizations in Yunnan colleges and universities will inevitably expand. Their mutual contact and influence will be strengthened. Therefore, through the use of Internet and information technology, university continuing education will be the core to build an external learning network organization model with mutual influence. So they can carry out acquirement and transferring of the information and knowledge. Through the construction of the network organization structure, colleges and universities could mix their own development status and the necessary knowledge, information and resources with the organization's internal operations, from which to find their own sustainable development advantages and opportunities.

Conclusion

As the old informatization of continuing education cannot meet the need of development of social economy under “Internet4”, the continuing education of Yunnan colleges and universities must strengthen the combination of continuing education and network information technology in many fields. The unity of construction of information and business process, including enrollment, teaching, management and service, will be ensured by relying on a clear education network information construction goals and strategies. In order to build their own unique external learning network organization of the continuing education, and in order to build their own continuing education model of colleges and universities in Yunnan, we should pay more attention to all types of data information resources collection, analysis and application.
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