The Curriculum System Construction of E-commerce Major in the Era of Intelligence

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Abstract. For colleges and universities, the arrival of the intelligent era has made most college students confront a new round of knowledge system renewal, especially for students majoring in e-commerce. Therefore, based on the in-depth research and analysis of the characteristics of the intelligent era and the new requirements for e-commerce professionals, this paper creates a curriculum system for e-commerce specialty that reaches the demands of the intelligent era, thereby cultivating e-commerce talents that meets the new requirements.

Introduction

The advancement of science and technology has promoted the rapid development of human civilization. The gradual improvement of infrastructure such as the Internet, mobile Internet, big data, cloud computing, and Internet of Things has prompted the society to stride across the industrial age and the information age into the era of interconnected intelligence with the background of big data and overloaded intelligence. New retail, new finance, new manufacturing, new technologies and new resources have become the development trend. The advent of the intelligent era has brought far-reaching influences and great challenges to various fields and industries. The rapid development of artificial intelligence has not only attracted attention in the fields of finance and medical care, but its exploration in the field of education is also booming. Professor Jeremy Byronson of the Virtual Human Interaction Laboratory of Stanford University said at the 2017 ASU-GSV American Education Technology Summit: “Technology can not only break through the time and space constraints of education, but also better integrate with people's experience and emotions. Touching the essence of education.” Today, the combination of artificial intelligence and education has shown its extraordinary potential for development. For colleges and universities, the arrival of the intelligent era has made most college students face a new round of knowledge system renewal, especially for e-commerce students. In the era of intelligence, it has brought new influences on the development of e-commerce. New thoughts, new models, and new applications are emerging. Hence, as a student of e-commerce major, the practitioner and promoter of this field in the future, how to better adapt to the new requirements of the knowledge structure of e-commerce talents in the era of intelligence has become a major problem that must be solved at present. Therefore, based on extensive investigation and careful analysis, this paper will explore the
construction of a curriculum system suitable for this era, starting from the new requirements of e-commerce for talents demand in the era of intellectualization.

Due to the advent of the intelligent era, it has brought great challenges to the curriculum and talent training of various majors. Therefore, some experts and scholars have studied this issue in recent years, and the main ones are: Xu Guoqing [1] discussed the transformation of the training mode of vocational education talents in the age of intellectualization, starting from the five fundamental influences of the age on the working mode of technical and skilled talents. Bin Enlin, Xu Guoqing [2] based on the historical evolution logic of the concept of curriculum organization in vocational education and the analysis of the characteristics of production system in the era of intellectualization, put forward innovative ideas on the organizational notion of vocational education curriculum. Feng Jianjun [3]proposed that vocational education in the age of intellectualization should not only focus on imparting professional knowledge and skills, making students learn to work, but also on teaching them to make rational use of their leisure time and cultivate more interests and hobbies. Tan Xinggang[4]discussed the influence of the rapid development of science and technology on the progress of the times and the orientation of architectural design. In addition, he analyzed the intellectualization of buildings in detail and put forward the expectation for better intellectualized architectural design in the future. Miao Ke [5] explored the product design ideas and methods in the intelligent era, and proposed to use rapid testing and feedback iteration to reduce trial and error cycles and costs, at the same time, gradually become the core of new product development and design in the age. Fang Xujun [6] suggested that the intelligent era would inevitably bring fundamental changes to the vocational education personnel training model, including the construction of interdisciplinary and multi-skilled core talent training path for vocational education. Zhao Erzhen [7] researched the integration of e-commerce and artificial intelligence technology, the main purpose was to promote it under the application of e-commerce and give impetus to the progress of e-commerce, and so on.

It can be seen that although there are certain research results in this field, on the one hand, research on this field has just started, far from reaching the level of system and maturity. On the other hand, the existing research results have not been specifically targeted at the training of e-commerce professionals in colleges and universities. Based on the actual situation of colleges and universities, this paper will analyze and study the curriculum system of e-commerce specialty in the era of intellectualization. It has strong pertinence and makes up for the deficiencies of research results in this field. Therefore, this study has important theoretical and practical significance.

Characteristics and Trends of the Intelligent Era

With the development of the Internet and big data, artificial intelligence has gradually penetrated into people's life fields, providing a more convenient way for people's work and life. The characteristics of the intelligent era are mainly classified into several points:

**Big Data**

In the era of intelligence, big data analysis can help enterprises solve many problems in operations management, such as precision marketing, personalized customization and services, customer demand forecasting and analysis, category optimization, supply chain flexibility, etc.
This treatment is not only ubiquitous but also has the characteristics of scale, speed and diversity. The advantage of big data is the basis and precondition of the popularization of intelligent technology. The extensive application of artificial intelligence is based on the accumulation, analysis and mining of large amounts of data. Digitization is an important feature of the intelligent era and the core of the intelligent era. Data resources are the core resources with the most competitive advantages in the intelligent era.

**Refinement**

The advent of the intelligent era has made the social division of labor and service quality more refined. Different from the extensive production lifestyle in the past, the refinement brings us a specialization that is can not only start from the small things and details that the user cares about, but also realize the “micro-innovation” of the enterprise operation. And provides the user with careful and meticulous service, to avoid leaving a dead space. It can also refine, quantify and standardize production and life, thereby improving people's quality of life.

**Precision**

In the era of intelligence, whether it is people's daily life or work, it is inseparable from the rules, and standardization brings people to traceable, evaluable, and examinable, which is conducive to further regularizing people's behavior, accurate positioning and effective capture. Therefore, it is more beneficial to the optimal allocation of social resources. Of course, the precondition of accuracy is also the accumulation, analysis and mining of a large amount of relevant data. The comprehensive utilization of data resources is the basis and prerequisite for achieving accuracy.

**Individuation**

In the era of intelligence, personalized services will become a trend. Based on the analysis of big data, we can accurately understand the needs of different people, so as to carry out different personalized customization services for different people, and personalization allows for differences. It can promote the development of society while meeting individual needs.

Under the impetus of this global development wave, the intelligent era will mainly present that the simple and repetitive work gradually replaced by machines, greater dependence on big data, and more obvious trend of multi-domain integration.

**New requirements for E-commerce Talent in the Era of Intelligence**

In the era of intelligence, the business philosophy, organization, operation strategy, marketing plan, supply chain management, and customer relationship management of e-commerce companies have undergone great changes. Almost all strategies and solutions are determined by data analysis and application. Therefore, the intelligent era has put forward new requirements for e-commerce talents that meet the needs of various fields.

**With Data Thinking and Integration, Cross-border Thinking**

It can be seen that almost all management strategies of e-commerce enterprises in the intelligent era are based on data analysis. Therefore, e-commerce talents that meet the requirements of the intelligent era must first have data thinking. Big data is the product of the combination of computer and Internet. The computer realizes the digitization of data, and the Internet achieves
the network of data. The combination of the two makes big data promote the better development of the e-commerce industry. Big data brings us a new way of thinking. This new thinking subverts the giant case first in the traditional field of information technology, and then penetrates into the traditional business field. In addition, when researching and analyzing the development of the e-commerce industry, it is not difficult to find that today's e-commerce is no longer a simple network sales, but a common development that integrates multiple fields. Therefore, it requires e-commerce talents to possess data. There must be cross-border and integrated thinking in addition to data thinking.

Strong Data Analysis and Processing Capabilities

We can see that the formation of competitive advantage from e-commerce enterprises in intelligent age is based on data analysis. Hence, talents who meet the needs of e-commerce in the new era must have strong data analysis and processing capabilities. It includes data integration and pre-processing capabilities, data analysis capabilities, and application capabilities for analysis results. The ability of data integration and preprocessing refers to collect integrated raw data according to the requirements of analysis and problem solving, and to supplement, smooth, denoise and other pre-processing work, and to process the source data into a form suitable for data analysis and mining. Data analysis capability refers to select appropriate algorithms around the target of data analysis and mining, and to find potential, implicit and valuable information behind the running data. The application ability of the analysis results refers to visualize the results and apply them to the field of e-commerce, so as to solve the practical problems.

Strong Big Data Analysis and Application Capabilities

With the development of cloud computing, big data, Internet of Things, and artificial intelligence, human society is about to enter a era of ubiquitous intelligence. Cloud computing and big data have become the infrastructure of the digital economy. Data-driven and ubiquitous intelligence have become the basis for transformation and upgrading of all walks of life. Therefore, in the era of intelligence, students majoring in e-commerce must have strong data analysis and application capabilities.

Course System Construction of e-commerce Specialty in Intelligent Era

Construction Principle

Under the promotion of new technologies such as big data, cloud computing, mobile internet, blockchain technology, and artificial intelligence, we have new ideas and construction principles in the course of constructing the course system of E-commerce specialty.

(1) Course setting should be conducive to the cultivation of big data thinking

In the era of intelligence, we must pay attention to the introduction of big data thinking. Big data thinking is to store, analyze and process all the collected data. From a holistic perspective, we can find the connection between trivial things. Using this correlation, we can draw an implied conclusion that big data thinking is to study the relationship between various fragmentary and seemingly unrelated things through the way of “big see small”.

(2) Course setting should be conducive to the refinement of e-commerce operation and management
The refinement of operation management refers to the use of big data analysis in e-commerce operations to grasp the market rules and user population distribution, understand the accurate needs of user groups, and precisely locate service users. In this way, targeted services and products can be pushed to customers, so that targeted users or valuable users can find needed products and services in a more timely and convenient manner, advertising can be more accurate and effective, and refined operation and precise marketing can be realized. Hence, in order to meet the new requirements of e-commerce talents in the era of intelligence, e-commerce students must integrate consumer information from different stages of the management operation process, explore the relationship behind the data, grasp the market rules, and understand the real needs of users. The relevant services and products will be pushed to customers, achieving fine management in the operation process. Therefore, the curriculum of e-commerce in the era of intelligentization should be conducive to the refinement of e-commerce operation management, helping e-commerce companies to increase the purchase rate of users and avoid customer loss.

(3) Course setting should be conducive to realizing the intellectualization of e-commerce operation

The intelligentization of e-commerce operations refers to the use of e-commerce platform data analysis and mining tools to analyze user purchase behavior and consumption habits, and to identify user needs, including store operation data, traffic source details, hot words and keyword rankings, profit trend analysis, logistics and other comprehensive optimization and upgrade, laying the foundation for intelligent operation management.

Curriculum System Construction

In building the curriculum system of e-commerce specialty, we should co-ordinate the whole process of undergraduate talent training. This paper examines the school training objectives, professional training objectives, the intrinsic links of the curriculum education objectives and the combination of in-class and extra-curricular, gaze at the rationality and scientificity of teaching content and curriculum structure. Finally, generally optimize the curriculum structure, and constantly improve the "platform + module + group" curriculum system. The entire curriculum includes: general education platform, subject basic course platform, professional basic course platform, professional direction module and practical teaching platform. As shown in Figure 1.
The core of the intelligent era is to emphasize the thinking of big data analysis, advocate refined management and operation, and reflect personalization, initiative and learning. Therefore, in the construction of the curriculum system, the professional basic course from simple to complex arrangements are as follows: On the basis of the original curriculum system, strengthen the basis of intelligent, namely data analysis mining and big data processing, and can set up a series of courses such as "data analysis", "data mining", "big data analysis", "personalized recommendation and service" and "business intelligence", and to strengthen students' knowledge of big data analysis and mining and business intelligence, to adapt to the new requirements of e-commerce talent in the era of intelligence. Emphasis on systematicness and pertinence in the content of the course, we must analyze the data and cases of e-commerce. As shown in Fig 2.

Through the construction of the above curriculum system, students of e-commerce majors have data thinking. Data is widely used in the management and decision-making process, and based on data, highlight the accuracy and personalization in the process of business management through big data analysis, improving the pertinence and make process of the management decision-making more scientific.
Conclusion

The advent of the intelligent era has brought new opportunities and challenges to all walks of life, the higher education sector is no exception. How to cultivate talents that meet the new requirements of the intelligent era in all fields has become a difficult problem before us. Therefore, this paper takes the cultivation of e-commerce talents in the intelligent era as the research object. First of all, through in-depth research and review of literature, it deeply understands the characteristics and development trends in the era of intelligentization, and deeply analyses the new essentials of enterprises' knowledge structure for e-commerce talents in this era. Then around the demands of the knowledge structure of e-commerce professionals in the era of intelligence, the curriculum system of the profession is constructed to cultivate e-commerce talents suitable for the new requirements of the intelligent era.

References


