

# The Construction of Teaching System of Website Construction for College E-commerce Major in the Era of Big Data

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**Abstract.** The arrival of the information age has created a more suitable for the social development of the era of big data. Under the new normal, the era of big data increasingly needs all-round, talented and innovative talents. And in recent years with the continuous development of electronic information technology, China's e-commerce development by leaps and bounds. The purpose of this paper is to build a more information-based teaching system of website construction for e-commerce major through the combination of big data technology. Based on the background of the era of big data, this paper puts forward the view of carrying out educational information reform in colleges and universities, and puts forward a new idea of building a teaching model based on information management. It includes the following points: strengthening the construction of standard system of educational informatization, promoting the effective integration of educational information system, improving the overall information literacy of educational managers, promoting the construction of educational management information and the establishment of a new teaching model based on it. This paper mainly adopts the method of literature analysis, questionnaire survey and educational statistics to study the teaching situation of website construction of 160 soprano students majoring in e-commerce in a university. After three months of teaching, the students' general performance has increased by about 6%. Based on this, I hope to provide some Suggestions for data teaching and professional development and improvement under the background of big data.

**Keywords:** Big Data Era, E-commerce Major, Curriculum System Construction, Information Teaching

## 1. Introduction



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In ancient times, people could only count and measure data simply, and the function and value of data did not attract the attention of the society. Now, the world is in the age of big data, we track, body state can be accessed and processed data and take advantage of, such as shopping site by recording a user's browsing to understand their needs, recommend products of interest for users to increase sales, etc., are behind the data contains the available value. Big data has penetrated into all aspects of our daily life. Hospitals use data to share patient cases, enterprises use data to predict the future market, academic research USES big data for prediction and analysis, and the education field can dig out the rules in teaching phenomena and apply them by analyzing and interpreting the education big data. However, where this data comes from, whether it is real, what value it has, and how it should be processed and applied requires that every member of society have data literacy to meet the requirements of data-driven society. As the guide of students, the level of data literacy of teachers has a great impact on the future development of the society.

Business intelligence (BI), "big data" and analytics solutions are being deployed in a growing number of organisations, but recent projections suggest a severe shortage of graduates ready to work in the field. A new curriculum model is needed that appropriately introduces BI and analysis topics into the existing curriculum. The course needs to be combined with current big data developments, even as new proprietary analytics programs become increasingly prominent around the world. Babita Gupta has contributed to the BI field by providing the first BI patterns course guide. Babita Gupta's focus is on adding appropriate electives to the existing curriculum to promote the development of business intelligence skills, knowledge and experience, enhancing the curriculum experience for undergraduate majors, masters of science in business information systems, and masters of business administration. The new curriculum must strike a delicate balance between the coverage of topics appropriate to the students' professional level and background and the needs of the industry's workforce [1]. Rameshwar Dubey's aim is to identify big data and business analysis skills and further propose a successful BDBA vocational education and training framework. Design/methods/methods this study adopted a quasi-ethnographic approach, i.e. a review of existing literature and appreciative inquiry, to identify the skills required by the BDBA. This research helps to identify the skills of bdbas and proposes a theoretical framework for educating and training bdbas for successful careers based on existing literature and artificial intelligence. Further research could help the current research move to the next stage. Rameshwar Dubey proposed a theoretical framework, but it still needs to be verified by empirical data. This will generate a lot of interest in developing a more practical framework and conducting empirical and case studies [2]. Big data is no longer the subject of hype. It is now a field worthy of serious study, and natural scientists should be familiar with analysis. On the other hand, there is little empirical evidence that any scientific knowledge taught in schools can help people lead happier, more prosperous or more politically informed lives. DOS Santos sought the support of philosophical and constructivist literature to discuss the concept of big data and its philosophical field, the concepts of "emergence" and "crowdsourcing", and how we view "learning with big data" as a promising new approach to learning science [3].

In this big data environment, enterprises have put forward higher requirements for e-commerce professionals. In order to train practical e-commerce professionals to meet the needs of enterprises, colleges and universities should do a good job in the planning and construction of e-commerce courses. Based on the background of the era of big data and combined with the technology of big data, this paper studied how to build the teaching system of website construction course of e-commerce

major, and provided better Suggestions for the reform of the course by studying the technology of big data and analyzing the teaching situation.

## 2. Proposed Method

### 2.1. Education Big Data

Data + education has gradually become a new wave in the field of education, with the rise of digital campus construction, making educational data grow exponentially. Educational big data has become an extremely important new driving force in the field of education, playing an important role in the study of educational theory and practice. Education big data is one of the big data. It is the data set formed in the whole education process and collected according to the educational needs to promote the development of education and has a huge hidden value. In the broad sense, it refers to all data sets related to education, such as all kinds of data formed in teaching activities, etc. In the narrow sense, it refers to data related to learning [4-5].

#### (1) Form

There are three forms of educational big data. In addition to structured data that can be read and recognized by machines directly (such as test scores, ranking status and mouse clicks), most of them are semi-structured and non-structured data, such as semantic information provided by oral feedback or written feedback [6].

#### (2) Classification

Education big data includes four categories. The first is curriculum data, which generally exists in the educational administration management system of schools, such as course content data resources, homework completion level, test results and final exam results. The second is the classroom data. The classroom monitoring equipment can be used to obtain the behavior performance of teachers and students in the classroom, so as to record the generated classroom data, such as the number and time of students playing mobile phones and the classroom interaction. The third is the data of online learning behavior, such as the duration of students' watching course videos or doing exercises, the number of modifications, the frequency of mouse clicks, whether they jump, whether they repeat, etc. Fourth, data that affect individual learning but are not directly related, such as some social system data, data related to individual psychological and physical conditions, etc. [7].

Educational big data is an effective tool for teachers to carry out educational analysis, providing scientific basis for analyzing and improving students' learning effect and improving teaching strategies. From the perspective of data sources and application fields of educational big data, it will play an extremely critical role in future education [8].

### 2.2. Data Literacy

With the emergence of the application value of big data, data literacy has attracted wide attention. Data literacy is the ability to correctly understand and use data to guide teaching, including the effective separation, collection, management, analysis, summary and optimization of data. Data literacy is the ability to interpret information in data, to use it to create and communicate, and to

describe it in an effective way. Data literacy is the ability to "listen, speak, read and write" data, including understanding, reading, evaluation, application and communication of data. It is the ability to objectively and dialectically understand and process data on the premise of conforming to social morality and ethics, and to give play to the value of data <sup>[9]</sup>.

Although there is no consistent definition of the term "data literacy", in general, data literacy involves two aspects, that is, the definition of data literacy in this study. The second is the level of practical skills, including the ability of data acquisition, data processing, data communication and data application <sup>[10]</sup>.

### 3. Experiments

#### 3.1. Experimental Background

With the progress and rapid development of modern science and information technology and e-commerce related industries in China, the market demand for e-commerce talents is constantly changing. E-commerce professional one of the main training goal is to better meet the current big data economy era and the Internet society, the market demand for electronic commerce talented person, therefore, the universities must always pay attention to the big data and Internet e-commerce industry trends and the future development direction and big data and business on the Internet e-commerce market demand development trend of related professionals. But in the current enterprise in the big data and e-commerce related professional talents in colleges and universities is less involved in education and training management process, this kind of "behind closed doors" in colleges and universities management mode of talent cultivation directly led to the electronic commerce related specialized student from during the period of school learning professional knowledge with its actual conditions and demand market of the disconnect, difficult to really do big data and knowledge of related enterprises and ability training requirements.

Although e-commerce - related major is a major subject of management, its practical requirements are not lower than other engineering - related major. Although the current electronic commerce related because our country college offers professional needs, set up the electronic commerce specialized courses is more, but because most of these professional courses are require students to simulate practice and operation skills training, and because of our country's network simulation application software technology is still very backward, and simulation software in the colleges and universities of technology updates and development is relatively slow, can't well realize technology synchronous development with other industry, so most of the students to learn knowledge and content is always behind the simulation practice, can not contact with the student to study in a timely manner to the latest simulation software and network application technology. In addition, some teachers also found that students lack the ability of practical operation, and they could not carry out practical training and guidance of operation skills on the majors of high school students, which directly affected the cultivation of practical operation ability of e-commerce related professionals in colleges and universities.

#### 3.2. Experimental Design

The research object of this study is a school 160 sophomores of electronic commerce, by watching

them for three months in the form of a MOOC participation in the curriculum learning website construction, and through the questionnaire survey to collect them for MOOC form of teaching evaluation, to analyze big data technology how to optimize the course teaching system, the experiment result gather information as shown in Table 1.

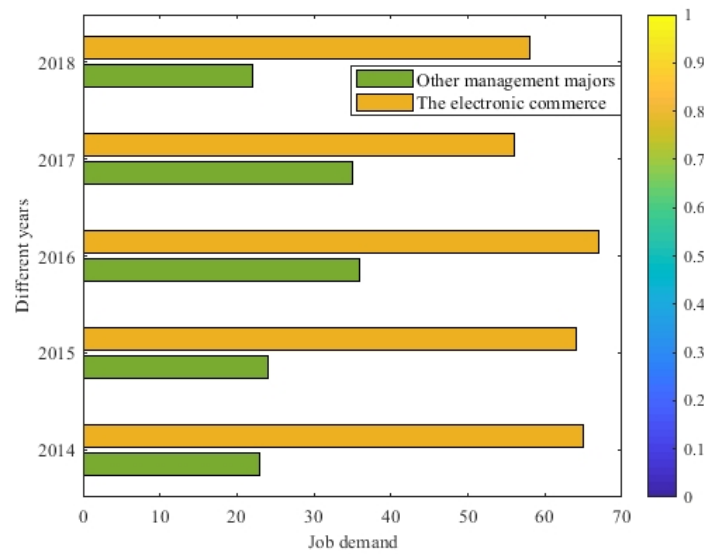
**Table 1.** Experimental evaluation collection

| Different class | Think mooc-style courses are very helpful to them | Think moocs are a bit of a help | Think moocs are not helping them | No feelings about moocs |
|-----------------|---|---------------------------------|----------------------------------|-------------------------|
| Class 1         | 16  | 7                               | 7                                | 0                       |
| Class 2         | 23  | 5                               | 13                               | 0                       |
| Class 3         | 24  | 12                              | 3                                | 0                       |
| Class 4         | 35  | 5                               | 0                                | 0                       |

## 4. Discussion

### 4.1. Analysis of the Teaching System of Website Construction under the Background of Big Data

According to the experimental results, nearly half of the students have little interest in the course teaching in the form of MOOC. How to train students to adapt to the information-based online teaching mode and the demand for talents in the era of big data requires reasonable reform of the teaching form and cultivation of students' data awareness. As shown in Figure 1, data show that while the e-commerce industry is developing rapidly, the demand for e-commerce professionals is growing rapidly. Statistics show that in 2015, the demand for Internet/e-commerce jobs grew rapidly compared with the same period in 2014, with an increase of 102.7%. The shortfall is expected to reach 5 million in 2018. In the context of the integration of big data citation, data management and business application mode with e-commerce, it is necessary for colleges and universities to develop comprehensive e-commerce application talents that can meet the needs of the society.



**Figure 1.** Changes in the demand for talents in e-commerce positions over the years

At present, the Internet e-commerce enterprises pay more and more attention to the big data marketing and data analysis. Under their influence and positive drive, China's Internet e-commerce will usher in a new round of rapid progress and development. The rapid progress and development of Internet e-commerce has caused a large number of shortage of professional talents. On e-commerce related professional talents cultivation in colleges and universities in the process of the need to break through and change the traditional way of e-commerce training concept, continuous innovation and highlight the characteristics of e-commerce professional courses, and to vigorously strengthen the construction of college teachers and the power of the team, the introduction of scientific communication and cooperation between colleges and the application of advanced technology of data and to use scientific e-commerce teaching methods to help college students better grasp and study related professional knowledge, improve university students on the data mining and analysis ability and the innovation of electronic commerce technology application ability, training a group of innovative applied technology talents.

*4.2. Suggestions for Improving the Teaching System of Website Construction*

In university of electronic business related professional course construction and teaching process, the storage architecture of importance should put special emphasis on the student database applications, is particularly important in colleges and universities should be some applications for the students to establish the database, especially the emerging of non-traditional database of human relationships, for these non-traditional database of the working principle and its application conditions, college teachers should be associated with e-commerce professional courses for teachers and students good research and teaching. At the same time, also suggested that college students pay attention to how to develop the business for some storage type documents and storage type software application consciousness and skills, through the business professional course storage architecture design can let students can learn more data storage methods, such as the sequence of data storage, document data storage etc. Some methods for data collection and storage. In addition, it is suggested that colleges and universities

should add some storage technology architectures and platforms that are very suitable for big data analysis for students. Through the combination of multiple storage architecture platforms, students can collect massive data, and students can be taught basic data mining and analysis techniques and related knowledge.

## 5. Conclusion

With the rapid popularization of educational information technology and the impact of big data on people, education has ushered in a new opportunity for reform. Teaching contents, teaching activities, teaching evaluation and so on began to be fully digitized. Under the background of the era of big data, e-commerce has gradually become a popular major, so it is necessary to pay attention to the cultivation of e-commerce professionals. This paper analyzes the teaching situation and student feedback of website construction course in the form of MOOC, provides corresponding Suggestions on how to improve the teaching system of website construction, and provides directions on how to properly cultivate students' data mining ability.

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