Online and Offline Hybrid Teaching Mode of College Civics Course in the Era of Big Data: Definition and Form

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Abstract: The online and offline mixed teaching mode of university Civics class in the era of big data has three forms: online as the main offline mode, offline as the main online mode and online and offline as the secondary mode, which are objective requirements and intrinsic motivation to achieve moral education, and big data technology provides the basis for the online and offline mixed teaching mode of university Civics class. Therefore, in the era of big data, the generation and use of the online and offline mixed teaching mode of college Civics class has inevitability and feasibility.

Keywords: Big Data Era, College Civics Course, Online and Offline Hybrid Teaching Mode

1. Definition of online and offline mixed teaching mode of university Civics class

In the era of big data, the education subject, education object, education mediator and education ring elements in the online and offline mixed teaching mode of college and university Civics class are organic whole, not the simple addition of each element. Therefore, when we discuss the online and offline mixed teaching mode of university and college Civics courses, it is necessary to start with the relevant concepts and their characteristics.

1.1. Definition of Big Data

Although we often talk about the use of big data, in order to better achieve the teaching effect of the Civics class in the era of big data, but for "what is big data" is still a wide range of opinions and confusion. Foreign scholars mainly elaborate on the definition of big data from the perspective of the scale of big data, the impact of big data on people's life, work and thinking, and the value of big data. For example, British scholar Victor Schönberg pointed out in his book "The Age of Big Data: The Great Transformation of Life, Work and Thinking" that "Big Data is not an exact concept. Initially, the concept meant that the amount of information to be processed was so large that it exceeded the amount of memory that a typical computer could use for data processing, so engineers had to improve the tools for processing data." "Big data is a source for people to gain new perceptions and create new value; it is also a way to change markets, organisational institutions, and the relationship between governments and citizens[1].And scholars in China understand similarly to foreign scholars, mainly from the perspective of the scale and value of big data, such as academician Wu Hequan, who believes that "big data refers broadly to huge data sets, which are valued for the valuable information that can be mined from them[2]."In short, although scholars at home and abroad have not unified the concept of Big Data, it is clear that Big Data is a data set of huge scale, difficult to integrate and analyse data through existing tools in a short period of time, and has a powerful potential value in producing significant changes to people's production, life and thinking.

1.2. Definition of the Big Data era

We have entered the era of big data as it has dramatically changed our production, our lives and our thinking. The era of Big Data is closely linked to the development of the Internet, the Internet of Things and so on. The rapid development of the Internet, the Internet of Things and so on has generated a huge amount of data, and the accumulation of the huge amount of data has laid the foundation for the coming of the Big Data era. Therefore, the era of big data is bound to be the era of information explosion. And the massive amount of data in the era of big data not only demands more tools for carrying data, collecting

data, analysing data and predicting data, but also demands more of our thinking. If we want to change from the era of small data to the era of big data, we must change from focusing on samples to focusing on all data, from focusing on the accuracy of data to accepting the mixed nature of data, from focusing on the cause-effect relationship between data to the correlation relationship, and realise that everything can be data. Thus, the era of big data is an era of technological change, but also an era of change in thinking.

1.3. The characteristics of the college civics course in the era of big data

Civics courses in universities in the era of big data are an important part of the society in the era of big data and have the general characteristics of the society in the era of big data. As mentioned earlier, the era of big data is an era of information explosion. People produce and receive all kinds of data with the help of the Internet and other devices, and with the rapid development of related technologies, the data grows exponentially. Therefore, the society in the era of big data has the characteristics of sea quantification, and accordingly the data produced by the university thinking class in the era of big data also has the characteristics of sea quantification. "In the era of big data, everything can be datafied [3]." And datafication means that all data can be interpreted and analysed in quantitative forms such as graphs and images, which means data visualisation, which provides great convenience for our life, work and study. Therefore, the social characteristic of the big data era is visualisation, and the data generated by the university's Civics course in the big data era thus has the characteristics of visualisation. The era of Big Data is an era of technological change, where people use technological change to deepen the depth, breadth and precision of data mining and analysis, and to analyse the correlation between data through data visualisation so as to make predictions. Therefore, the society in the era of big data is predictive, and the data generated by the university Civics course that relies on big data technology is also predictive. The visual and predictive nature of society in the era of big data means that people can access and use data more easily. Data is taken from the people and used by the people, and the concept of openness and common x-sharing is evident. Therefore, the society in the era of big data is open. Correspondingly, the data generated by the Civics course in colleges and universities in the era of big data also has openness. In addition, in the era of big data, the development of the Internet and the Internet of Things has broken the physical space-time barriers that restrict people's communication and interaction, changed the way people interact, expanded the channels through which people obtain information, and enhanced the interaction between people and people, people and machines, and machines and machines. Therefore, the society in the era of big data is interactive, and the Civics course in universities in the era of big data also has such characteristics.

The data generated by the Civics Course of Universities in the era of big data has the general characteristics of the society in the era of big data, which is one of the characteristics of the Civics Course of Universities in the era of big data. In addition, the Civic and Political Science course of colleges and universities in the era of big data has unique characteristics. As the main channel and the main position of ideological and political education in colleges and universities, the university thought and political science class can help students establish a correct world view, outlook on life and values, and has the value of establishing moral education. The value of moral education object, education mediator and education subject, education object, educational subject, educational subject, educational mediator and educational ring body of the college and university Civics and Political Science Course are not only different from the general characteristics of the society in the era of big data, but also fully reflect the value of the college and university Civics and Political Science Course in establishing moral education.

1.3.1. Characteristics of the educational subject

Ideological and political education is a conscious, purposeful and planned practical activity to educate people, cultivate and enhance people and enhance their subjectivity[4].From a narrow point of view, ideological and political education is the school college Civics course, ideological and political educators mainly refers to the college college Civics course education subject, there are individuals and groups, including the subject of teaching and learning the subject of these two aspects. It can be seen that the subject of education of college and university thought and political science course has distinctive subjectivity, which is mainly expressed as mobility, creativity and autonomy, which is more obvious in the era of big data. The main body of teaching is the teachers of college and university Civics and Political Science course, whose subjectivity is reflected in the fact that the teachers of college and university Civics and Political Science course are not only the designers and organizers of teaching activities, but also the leaders. The main body of learning is the students of college and university thought and political

science course, whose subjectivity is mainly reflected in the independence, creativity, planning and foresight. In other words, the students of college and university thought and political science course in teaching activities according to their own actual situation of independent ideological and political education. Subjectivity is the distinctive feature of the main body of college and university Civics and Political Science education, and is also the key point that distinguishes it from other courses in colleges and universities. Although the teachers and students in the teaching process of college Civics and other courses have played the subjectivity of teaching and learning, but the subjectivity played by the teachers and students in the teaching process of college Civics is different from the subjectivity of other courses, which is mainly manifested in the interaction of the fundamental task of establishing moral education for people in college Civics and politics course on the subjectivity of the education subject.

1.3.2. Characteristics of the educational object

The object of education in college and university thought and political science course is relative to the main body of education, mainly including the object of teaching and the object of learning these two aspects, namely college and university thought and political science course students and teachers. In the teaching process of Civic and Political Science course, the main body of teaching (teachers) carries out ideological and political education to the object of teaching (students), and the main body of learning (students) accepts the ideological and political education of the main body of teaching (teachers) conditionally according to their actual situation, and there is a gap between what the main body of learning (students) learns and what the main body of teaching (teachers) teaches to achieve. There are differences. There is thus a feedback from the subject of learning (the student) to the object of learning (the teacher). Before the next ideological and political education, the object of learning (the teacher) makes targeted pedagogical adjustments to the feedback from the subject of learning (the student) to provide better feedback to the object of teaching (the student); in addition, the subject of learning (the teacher) is subject to relevant learning. That is, in the process of ideological and political education, teachers of college and university thought and political science courses have to accept students' feedback and educate themselves; before the next ideological and political education, teachers of college and university thought and political science courses themselves have to accept relevant education and apply the feedback and relevant education in the next ideological and political education.

In this process, the subject and object of college and university Civics education are relative, and the two transform each other, that is, the subject is objectified and the object is subjectified, which means that in the era of big data the object of college and university Civics education also has the characteristics of subjectivity. Marx pointed out that "all social life is practical in nature[5]."In the process of ideological and political education practice, the educational object of college and university Civics and Political Science course is the subject of practice, and the basic premise of the comprehensive development of the practical subjectivity of the educational object has to be carried out through education. Therefore, we should not only pay attention to and cultivate the subjectivity of the educational object of the college and university Civics class, but also promote the comprehensive development of the educational object throughout the whole process of the college and university Civics class.

1.3.3. Characteristics of educational mediators

Educational media, including educational purposes, educational content, educational methods and approaches, and carriers, refer to the ideological and moral norms required by a certain society and the various ways and means of educational activities used by educators to influence the educated in the process of ideological and political education[6]. In the era of big data, the education medium includes not only the purpose of education, education content, education methods and means, and carriers. From a macro perspective, big data itself can be included in the educational mediator as a kind of environment. (The educational mediator in this paper is elaborated from a micro perspective, and the big data environment is put in the part of the ring body for elaboration.) The educational mediator of college and university Civics course is the application process of the educational subject of college and university Civics course using various ways and means to influence the educational object on the basis of grasping the objective laws of ideological and political education.

The educational medium of the university's Civics course connects the educational subject and the educational object, and carries the elements of educational content, educational purpose, educational method and carrier. It can be seen that bearing is an important feature of the education medium of the university's Civic and Political Science course. The educational medium of the university's Civics course is the product of the practical activities of ideological and political education. Therefore, with the development of big data technology, the types of education media of college and university Civics course

are also being enriched and developed, and profoundly affect the development of college and university Civics course. Therefore, the education media of university and college Civics course has practicality. In addition, whether or not the selection and application of the education media of the university and college Civics course is appropriate directly affects the degree of realisation of the education purpose of the university and college Civics course. This process of subjective activities reflects the subjectivity of the educational medium of the college and university Civics and Political Science course. In a word, the medium of Civics and Political Science education in colleges and universities has the bearing, practice and subjectivity.

1.3.4. Characteristics of the educational ring body

In this paper, we discuss the education environment of college and university Civics and Political Science course, that is, the ring body of college and university Civics and Political Science course education, not that all the environment is the education environment of college and university Civics and Political Science course, only the factors that have influence on the education activities of college and university Civics and Political Science course education and the ideological cognition of the subject and object of college and university Civics and Political Science course education, we think it is the ring body of college and university Civics and Political Science course education, we think it is the ring body of college and university Civics and Political Science course education, mainly including natural environment and social environment. And social consciousness is the dynamic reflection of social existence, thus changes in the social environment will affect the changes in the social environment of college and university Civics course is mainly the social environment, especially the social environment in the era of big data.

In the era of big data, massive amounts of data are flooding all fields, including, of course, the field of education. The huge amount of data not only brings the convenience of obtaining information to the teaching of college and university Civics course, but also makes the education environment of college and university Civics course complicated. In the era of small data, the main body of college and university Civics course education is the main source of information of college and university Civics course education. However, with the development of big data technology, the channels through which the educational subjects of college and university Civics and Political Science courses obtain information have increased, and the educational subjects of college and university Civics and Political Science courses are no longer the main source of information for the educational subjects, and their dominance is challenged. When the education object of college and university thought politics course obtains big data information, it has to face the situation that big data information is uneven and muddy, which makes the originally more single college and university thought politics course education environment more complicated.In this period, the discernment ability of the education object (mainly referring to students) of the college and university Civics course is yet to be strengthened, and is vulnerable to undesirable influences. At the same time, the educational activities of college and university Civics courses are also affected by the big data environment, for example, the educational subjects of college and university Civics courses analyze the data of the educational subjects of college and university Civics courses with the help of big data technology and form a double synergy to choose the optimal teaching method of college and university Civics courses according to the feedback of classroom teaching, so as to effectively improve the teaching effect of college and university Civics courses. Therefore, the education environment of college and university Civics course is more complex. Big data, as the educational environment of college and university Civics course, has an important influence on the educational activities of college and university Civics course and the educational subject and object, and this influence has an implicit nature. The subject and object of the college and university Civics course education are influenced by various kinds of information in the process of accessing the information of big data, and even not found to be influenced by it. In the process of acquiring information, big data technology "remembers" its "preferences" and pushes relevant information in a targeted manner, thus forming an "information cocoon". In the process of accessing information, big data technology "memorises" their "preferences" and pushes relevant information in a targeted manner, thus forming an "information cocoon", which restricts their thinking and is not conducive to their free and comprehensive development. Therefore, we need to give full play to the positive factors of the educational loop of the big data college and university Civics course, and eliminate or reduce the negative factors.

1.4. Definition of the online and offline hybrid teaching model

Scholars at home and abroad have diverse views on the concept of hybrid teaching and learning. Craig Barnum, for example, points out that the hybrid teaching mode is a teaching mode that integrates traditional teaching modes with online, offline, online and on-site teaching methods [7]. The emphasis is

on combining the advantages of traditional teaching models with those of online and offline teaching, focusing on a mixture of teaching environments and teaching methods. Philip Barker, on the other hand, emphasises that the hybrid teaching model is an effective integration based on constructivist and cognitivist theories [8]. It focuses on the mixture of teaching theories and concepts. The research on the concept of blended teaching model in China started later, and the main representatives include He Keqiang, Li Jiahou and Zhao Huiyan. He Keqiang scholars believe that "the hybrid teaching mode is a combination of the advantages of traditional teaching methods and the advantages of networked teaching, which not only plays the leading role of teachers to guide, inspire and monitor the teaching process, but also fully reflects the initiative, enthusiasm and creativity of students as the main body of the learning process[9]."According to Li Jiahou scholars:"Hybrid teaching refers to the optimal selection and combination of all teaching elements to achieve teaching objectives. In the teaching activities under the blended teaching mode, teachers and students use various teaching methods, modes, strategies, media and technologies skilfully according to the needs of teaching and learning to achieve a state of art[10]."In general, the hybrid teaching mode is a teaching mode in which two or more elements are mixed in the process of teaching activities, such as the mixture of teaching theory, teaching philosophy, teaching environment and teaching methods. While Zhao Huiyan scholars put forward the concept of online and offline hybrid teaching mode on the basis of the concept of hybrid teaching mode, "Online and offline hybrid teaching mode is a mode that combines traditional teaching and online teaching. This model is based on a variety of theories, using a variety of teaching equipment and tools, teaching materials and media, combining classroom teaching methods and Internet teaching methods to achieve the best teaching objectives[11]."From this, it can be seen that the online and offline mixed teaching mode is one of the mixed teaching modes, which is a teaching mode in which online teaching such as network teaching and offline teaching such as classroom teaching and practical teaching integrate a variety of teaching methods to achieve complementary advantages. It is a mode of teaching based on various teaching theories and concepts.

2. The use of online and offline mixed teaching mode in the form of college and university Civics courses

In the era of small data, university college Civics class mainly adopts the offline teaching mode based on classroom teaching and the teaching method based on theoretical indoctrination. The teachers of the university's Civics class teach students through multimedia, blackboard and other teaching tools, and their teaching environment is limited to the classroom, which is difficult to extend to the practice. The traditional teaching mode of the college and university Civics class focuses on "teaching" and neglects "learning", making it difficult to maintain the structural needs of "teaching" and "learning". It is difficult to maintain the relative balance of the structural needs of "teaching" and "learning" interaction, which contradicts with the new needs of college students for college Civics courses. In the era of big data, teaching platforms such as mu class have played an enlightening role in the innovation of the teaching mode of college and university Civics and Politics course. The online and offline mixed teaching mode presented by the three forms of online and offline, offline and online and offline, has greatly promoted the change and innovation of the teaching mode.

2.1. Online is the main focus offline

The online and offline mixed teaching mode presented in the form of mainly online and offline college Civics class has promoted the innovation and development of college Civics class. The online teaching is presented in two ways: live and recorded, using mobile terminals such as computers, mobile phones or iPads to provide students with teaching videos and online solutions through apps such as QQ, WeChat, Tencent Meeting and Nails. And offline teaching is the face-to-face teaching by teachers of college Civics through multimedia or teaching tools such as blackboard, or guided teaching in practice.

When teaching a new lesson, teachers of the university's Civics class make use of the flipped classroom to make corresponding arrangements and designs for the chapter according to its difficulty level, adopt thematic and other teaching methods to present the important and difficult points of the teaching mode to explain the non-important points and solve the doubts offline, so that the teaching content is systematic, logical and vivid. In addition, students actively use their initiative to collect relevant information and expand their knowledge. Of course, the prerequisite for all this is that students play their initiative correctly. In the absence or inadequacy of online supervision, if students do not use their initiative correctly, for example, by taking over classes, the online classroom will be a sham and the

learning effect will be greatly reduced. The result is predictable: when teachers and students interact offline to solve problems, only some students participate. Teachers of higher education Civics classes will turn the offline interactive problem-solving class into an offline teaching class because of the poor results of students' online learning. This will consume a lot of teachers' time and effort, and a lot of teaching time will crowd out their research time; and for some students, this is undoubtedly useless, which is unfair to them. And in this process, some teachers of university Civics courses will formalise and one-sided the offline teaching mode and rely on online teaching, i.e. the teaching content is all presented through the online teaching mode. In the absence of supervision of online teaching, teachers and students are in a "vacuum", and there is a lack of intellectual and emotional interaction between the two sides. It is difficult for teachers to obtain feedback from students and to understand their real learning situation. This can lead to the blind use of online teaching technology and the emergence of formalism by the teachers of the university's Civics class, and exacerbate the alienation of the teaching of the university's Civics class [12].

In the process of strengthening and consolidating the college Civics course, the college Civics teacher provides targeted guidance based on the characteristics and real learning situation of the students. In the process of teaching new lessons, teachers of higher education Civics interspersed with designs to strengthen and consolidate the links, for example by setting up links to do questions to reach the appropriate score before students can continue to watch the next chapter video. This serves as a degree of supervision and regulates student behaviour. In the process of video learning, students can strengthen and consolidate their knowledge by checking the gaps and achieving a true understanding and mastery of knowledge. In addition, through collecting, collating and analysing the data on student learning on the online platform, teachers of the university's Civics course can understand the students' learning situation and then provide targeted offline guidance. This saves time for teachers and students to interact and solve doubts in offline classes, which can effectively systematize and theorize knowledge and improve teaching quality. However, problems such as substitution and ghostwriting are still problems faced by online teaching mainly in the form of recorded lectures.

The online teaching presented as a live stream can be a good solution to problems such as substitute teaching. During the New Crown epidemic, schools and universities across the country suspended classes without stopping. Teachers of college Civics classes live-streamed their classes through online platforms such as QQ, WeChat, Nail and Tencent Conference. The live-streaming method of teaching, college teachers can interact with students "face to face" to get the appropriate feedback, to understand the overall learning situation of students, the online classroom has a more comprehensive management. This can bridge the gap between teacher-student interaction and classroom management by supplementing the online teaching presented in the video format. During special periods, the online teaching presented in the form of recording temporarily replaces the offline teaching, especially the consolidation part or the lecture part, while the online teaching presented in the form of live streaming mainly undertakes the offline interaction and solution of doubts or the lecture part. However, online teaching cannot replace offline teaching. Viktor. Viktor Mayer-Schönberg and Kenneth Cukier Viktor Mayer-Schönberger and Kenneth Cukier, for example, emphasise in their research that online education is not a substitute for course instruction: "It is more likely to be a supplement to formal educational settings than a substitute [13]."Therefore, the hybrid online and offline teaching model must be applied properly, without losing sight of the other and grasping the link between online and offline.

2.2. Offline is the main focus and online is supplementary

In the era of big data, although the offline mixed teaching mode of college Civic and Political Science class with online as the main focus can well solve the problems of offline teaching mode of college Civic and Political Science class in the era of small data, there is the problem of integration of big data technology with college Civic and Political Science class. This means that teachers of college Civics class lack corresponding big data technology or professionals who master big data technology lack corresponding theoretical knowledge and professional level of ideological and political education [14]. The online and offline mixed teaching mode has a short board in technology. The relationship between online and offline teaching should be handled well by the teachers of college Civics course, and the offline based online supplemented hybrid teaching mode of college Civics course is a better choice under the situation that the combination of big data technology and education, especially college Civics course, is not mature enough.

The teaching mode of Civics and Political Science class in colleges and universities, as the name implies, is based on offline teaching, supplemented by online teaching mode. Most of the teachers of the university's Civics class will explain all the content required by the textbook through offline teaching

such as classroom teaching, while online teaching is only a process of review and consolidation. In the classroom, teachers of college Civics courses are able to capture information about students' learning in a timely and effective manner, and respond accordingly, and are able to communicate and interact with students. Although the classroom teaching environment is simpler and easier to control for teachers of college Civics, this is not to avoid the impact of big data on college Civics. This kind of teaching gives play to the advantages of classroom teaching while effectively relieving the pressure on college Civics teachers to correct homework with the help of online teaching review and consolidation links, but the online teaching review and consolidation process tends to overlap with offline teaching content. The online teaching situation requires the teachers of the university's Civics course to analyse the relevant academic data, which requires the teachers of the university's Civics course to master the corresponding big data analysis ability. The data analysis will be fed back in the next teaching process, which requires the teachers of the university's Civics course to reasonably design the course structure and effectively connect the teaching contents.

In addition, some of the university Civics teachers through the students online independent learning teaching content, offline university Civics teachers to answer questions, review and consolidate, discussion, that is, flipped classroom. The difference between the online and offline flipped classroom is that the offline question and answer sessions, revision and consolidation, and discussion are the main focus of the Civic Studies teachers. This teaching process is mainly guided by the teacher, especially in the offline teaching process, giving full play to students' autonomy and making the teaching achieve satisfactory results. This is something that both have in common. However, it requires a high level of student autonomy, and the online teaching environment is characterised by complexity and difficulty in class management. Without sufficient student autonomy and the lack of effective management of online teaching, online teaching is a sham. This is entirely a formal mix of online and offline teaching, which is essentially offline. The development of offline teaching cannot be separated from online teaching and needs to be complemented by online teaching to make up for the shortcomings of online teaching; the same applies to the development of online teaching.

2.3. Online and offline

According to the Marxist system optimization principle, the online and offline mixed teaching mode of college Civics class uses online as the main offline supplement, offline as the main online supplement, which is essentially the organic interface between online and offline teaching, to achieve the optimal effect of teaching and ultimately realize the fundamental task of establishing moral education. The online and offline mode reflects the relative balance between online and offline teaching, and is a manifestation of the organic connection between online and offline teaching.

In the online and offline mixed teaching mode of college Civics class, teachers of college Civics class do not deal with the relative balance between online and offline teaching, and favoring online teaching will lead to the problem of alienation of college Civics class teaching. The teachers of college Civics course over-rely on online teaching, with the help of big data technology to analyse students' academic data and provide targeted guidance. However, in the absence of effective class management in online teaching, and in the "invisible state" of offline teaching, the targeted guidance of big data technology cannot really work. The lack of information on the corresponding ideological and moral aspects will lead to insufficient integration of online and offline teaching in the university's Civics class, and the fundamental task of establishing moral education cannot be achieved. The problem of integration between big data technology and the university's Civics and Political Science course in the online and offline mixed teaching mode, which is mainly offline, has a great impact on the relative balance between online and offline teaching for teachers of the university's Civics and Political Science course. The teachers of college Civics course are biased towards offline teaching, and if the integration of online teaching and offline teaching is not sufficient, it is formally a mixed teaching mode of college Civics course online and offline. Therefore, to maintain a balance between the two, it is necessary to organically connect online teaching and offline teaching. Online and offline co-emphasis for online mainly offline as a supplement, offline mainly online as a supplement to form a circular channel, so that the advantages of online teaching and offline teaching complement each other, forming a virtuous cycle. Therefore, the combination of online and offline is a good way to deal with the organic connection between online and offline teaching.

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