Literature Review on Intelligent Media of Ideological and Political Education

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Abstract: *With the development of intelligent technology, "intelligent media of ideological and political education" has become a hot topic in recent years.There are also many problems in the hot discussion. For example, first, the research results of intelligent communication media are mostly focused on communication studies, and there are few theoretical and systematic researches in other disciplines. Second, the academic circle has not clearly defined and explained the connotation and extension of the intelligent media of ideological and political education. Third, the research on the intelligent media of ideological and political education is still scattered and has not formed a complete system. Therefore, through the analysis of literature, the research actuality which includes media, media of ideological and political education, the impact of information technology on ideological and political education, intellectualization and datalization of ideological and political education,the application of intelligent technology in education, the intelligent media, and the people's moral development in information society is sorted out and summarized in order to expand the follow-up research.*

Keywords: *ideological and political education; intelligent media; Literature review*

1. Introduction

Human society is experiencing an unstoppable wave of intelligence. Modern information technologies, such as artificial intelligence, big data and block chain, are profoundly affecting and changing people's way of production and life. The state has formulated a series of policies and documents to promote the development of intelligent technology.The deep integration of intelligent technology and ideological and political education has become the focus of academic research.

2. Domestic research situation

Domestic research on the basic theory of ideological and political education is more in-depth, and there are emerging some accomplished scholars.They study the concept, function, goal, content and mode of ideological and political education systematically from the perspectives of anthropology, sociology, culture and behavior.These studies have played an important role in consolidating the theoretical basis of ideological and political education and promoting the perfection of the theoretical system of ideological and political education. However, few studies on ideological and political education directly involve the intelligent media of ideological and political education. Overall, the domestic studies on the intelligent media of ideological and political   education can be summarized as four aspects: media, media of ideological and political education, the impact of information technology on ideological and political education as well as intellectualization and datalization of ideological and political education.

2.1. Research on media

The research object of this article is the intelligent media of ideological and political education. In order to clarify the connotation and extension of the intelligent media of ideological and political education, the basic problems of the media need to be clarified first. Through literature review, the academic research on media is divided into five aspects: the concept, characteristics, types, functions and development stages of media.

2.1.1. The concept of the media

Some scholars define media as material entity. Shao Peiren points out that media is a material entity

between communicator and receiver for loading, transmitting, extending and expanding specific symbols.[1] Hu Zhengrong, Duan Peng and Zhang Lei point out that the media in the sense of communication refers to the material entity that transmits information symbols.The material entity that disseminates information symbol to the masses is called mass media. Some scholars have clarified the connotation and denotation of media. Li Bin believes that the connotation of mass media refers to specialized media organizations and information carriers that can spread information to the public on a large scale, and the denotation of this concept refers to several media such as newspapers, magazines, radio, television, movies, newspapers and books. Some scholars believe that the media in today's era is no longer defined by media institutions and media entities, but by the cognition of media users based on relations. Yu Guoming puts forward that in the era of "everything is media", media is shifting from "a tool to transmit information" to "a bond of relations", and media is no longer defined by media institutions and entities, but by media users based on the cognition of relations. At the same time, he also believes that the new media form is a complex system, a "network" woven and weighted by algorithms, thanks to the connectivity between Internet technology and form.[2]

2.1.2. Characteristics of the media

Some scholars have analyzed the characteristics of all types of communication media as a whole. Liu Jianyun , Qi Yuan, Wang Kun believe that media has the basic characteristics of substantiality, mediation, load, reduction, expansion and so on.[3] Shen Fan points out that media have physical characteristics, information characteristics, disseminability, systematicness and independence. Some scholars have sorted out the characteristics of different types of media. Shao Peiren and Hai Kuo propose that printed mass media are portable and easy to survive. Electronic media has the following characteristics: Firstly, electronic media can enhance the sense of reality and three-dimensional sense. Secondly, it has cross-space property. Thirdly, radio and TV reports have immediacy and accompaniment. Digital media has many advantages of information transmission. After the absorption of satellite and Internet transmission technology, the information transmission is truly real-time and on-site.[4]

2.1.3. Types of media

As for the types of media, scholars classify them from different angles. Liu Jianyun, Qi Yuan, Wang Kun divide the types of communication media along the historical development process, and propose that according to the sequence of human communication media development, communication media can be divided into five categories: writing media, printing media, broadcast media, film and television media, and new media.[5] Yan Jingyi divides the media into new media and traditional media from the perspective of technology, standardization of information communication and audience size. From the perspective of standardization of information dissemination, media can be divided into organized media and social media.From the perspective of audience size, media can be divided into popular media, segmented media and niche media.Li Bin divides mass media into mass media as information carriers, mass media as social institutions and new media.[6] Mass communication media as an information carrier, including print media and electronic media. Mass media, as social institutions, mainly include news agencies, newspaper offices, magazines, publishing houses, radio stations, television stations and media groups. New media is a relative concept, which refers to the new media produced with social development. Transnational satellite radio and television, electronic publications and other new media can be called new media, but the most influential new media today is the network media composed of multimedia computers and information superhighway.

2.1.4. Functions of the media

Cui Yinhe proposes that the most basic function of mass media is to obtain and transmit information. In addition, it also has the function of cultural inheritance, public opinion guidance, leisure and entertainment.Peiren Shao and Hai Kuo divided the functions of media into social functions and industrial functions. Among them, the social functions of mass media include radar function, control function, education function and entertainment function. Kunzhi Tan points out the positive and negative functions of mass media. He believes that the positive functions of mass media include information integration, productivity, guiding public opinion, cultural knowledge, professional interpretation, and leisure and entertainment.The negative functions of mass communication mainly include closed personal mind, weakened spiritual significance, lack of emotional education, lack of ethical binding force, highlighting cultural hegemony and lack of humanistic spirit.

2.1.5. Development stages of the media

Generally speaking, the academic community has reached a consensus on the specific development

stage and evolution sequence of the media.Lu Chunyan, Zhang Hongzhong, Li Ling,Hu Zhengrong , Duan Peng, and Zhang Lei all believe that communication media has experienced the evolution of oral media, written media, printing media, electronic media and network media. Other scholars divide the development stages of communication media from recording mode and carrier form. Shen Fan points out that in terms of recording mode and carrier form, in general, communication media can be divided into five stages: oral media, calligraphy media, printing media, electronic media and digital media.In his opinion, at present, mass media are mainly divided into three categories: printed mass media, electronic mass media and new media. Print mass media mainly refer to newspapers, magazines and books, electronic mass media mainly refer to radio and television, and new media with mass communication function mainly refer to relevant digital media based on computers and the Internet.

2.2. Related research on ideological and political education media

There is a close logical connection between the media of ideological and political education and the intelligent media of ideological and political education. The media of ideological and political education contains the intelligent media of ideological and political education. The intelligent media of ideological and political education is the latest development of the media of ideological and political education.Through sorting out the relevant content of ideological and political education media, it will lay a foundation for further discussion of the intelligent media of ideological and political education.

2.2.1. The concept of media for ideological and political education

At present, the academic circle has not reached an agreement on the definition of ideological and political education media, which is mostly studied from the perspective of Communication Studies.Some scholars believe that ideological and political education media is a communication channel and carrier.Wang Xuejian and Liu Qiang believe that ideological and political education media refers to the communication channels and carriers (channels) used by ideological and political educators to publicize education to the educatees.[7]Some scholars put forward that the media of ideological and political education not only refers to carriers, channels, tools and technical means, but also includes media organizations.Ou Yanglin holds that the media of ideological and political education refers to the carriers, channels, tools and technical means used in the whole process and links of carrying out ideological and political education, as well as the media organizations engaged in the dissemination of ideological and political education. Some scholars regard the media of ideological and political education as one of the carriers of ideological and political education from the perspective of ideological and political education carrier research.Zheng Yongting , Liu Shulin and other scholars have pointed out that the ideological and political education carrier is to point to in the process of ideological and political education, educators select and apply some education intermediaries, including language carrier, activity carrier, cultural carrier, media carrier, carrier management, etc, which carry ideological and political information to achieve certain education goals. Media carrier refers to mass media, including newspapers, books, broadcasting, movies, television, Internet and so on.[8]

2.2.2. Characteristics of ideological and political education media

Some scholars explain the characteristics of the media of ideological and political education from specific media forms. Ren Yanni points out that the media of ideological and political education are characterized by life, flexibility, interest and emotion. Compared with the three traditional media such as newspaper, radio and television, network media is more decentralized, civilian, personalized, real-time and interactive. Mobile media in the new media has become one of the mass media with the strongest communication ability and the most extensive influence at the present stage due to its advantages and characteristics such as popularity, portability, multimedia integration of content and form, and personal privacy. Some scholars have expounded the overall characteristics of the media of ideological and political education.[9] Zhang Yu proposed that the communication media of ideological and political education, as an intermediary carrying and transmitting information in ideological and political education activities,is carrying, mediating, technical and controllable. Other scholars analyze the characteristics of ideological and political education media from the perspective of ideological and political education media carriers.[10] Wang Xuejian and Liu Qiang point out that ideological and political education media carriers have the characteristics of timeliness, compatibility, convenience, permeability, interaction, sharing and dynamic. Jin Zhu believes that mass communication carriers of ideological and political education also have obvious characteristics different from other carriers, that is, rapid information transmission, wide coverage of educational information and education objects, strong authority of information transmission, lasting proliferation of influence, strong concentration, and clear

social orientation.

2.2.3. Types of media for ideological and political education

According to the college students' ideological and political education in the process of the use of different media, Ren Yanni divides the medium of the ideological and political education into three categories: traditional media (language, class, activity), the mass media (including television, movies, radio, newspapers, magazines, books, Internet,etc.), new media (mainly refers to the mobile phone media).[11] Wang Baoyan considers the medium in the process of education as a education way. She thinks before the Internet, the ideological and political education way in general can be divided into three categories: the cognitive education approach based on "course explanation", the practical education approach based on social practice activities and the invisible education approach based on campus culture construction before. After the emergence of the Internet, the network platform has become the new classroom of ideological and political education. Liang Qingting, Chen Yong and Mei Hong classify ideological and political education media according to media. They believe that mass media mainly include newspapers, radio, television, movies, books, periodicals and the Internet. Zhou Qi illustrates three media types, namely oral media, text media and image media, and focuses on analyzing the relationship and integration process between ideological and political education and the three media.[12]

2.2.4. Functions of ideological and political education media

Some scholars have analyzed the functions of the media of ideological and political education. Liang Qingting,Chen Yong and Mei Hong believe that the media of ideological and political education have coordination, cohesion, stability, guarantee and guidance functions. Liu Shengjun points out that in terms of ideological and political education, mass media has important functions such as information transmission, agenda setting, cultivating sentiment, psychological comfort, shaping thoughts, influencing behaviors, social integration and control, social environment monitoring, training qualified politicians, constructing political legitimacy, and shaping national image. Some scholars have explained the function of ideological and political education media based on moral education. Wang Heng proposes that the media of ideological and political education have the function of moral cognition, moral guidance, moral evaluation and moral supervision.

2.3. Research on the influence of information technology on ideological and political education

The rapid development of information technology has influenced all aspects of society, and is also changing people's thoughts and behaviors. A series of changes brought by information technology not only promote the transformation and upgrading of ideological and political education, but also make ideological and political education face certain risks and challenges.First, in terms of positive impact, some scholars believe that the development of information technology has promoted the all-round development of ideological and political education.Wu Manyi, Ye Benqian argues that the era of big data has come, and emerging technologies such as artificial intelligence, cloud computing and block chainhave emerged in endlessly. These emerging technologies have constantly promoted the revolutionary reconstruction of the paradigm, concept, carrier, approach, content and system of ideological and political education. The ideological and political education of whole region, whole time, whole course, whole staff and whole effect becomes possible.[13] Chang Banyan proposes that in terms of the law of the formation and development of social ideology, the introduction of big data analysis can make our research on social trends of thought and public opinion more refined, and even realize the early warning of specific public opinions.In terms of effectively carrying out ideological and political education, the introduction of big data analysis is conducive to improving the precision and efficiency of publicity. Through big data analysis, the allocation of publicity resources is more reasonable. Liu Hongda and Yang Lingzhen believe that the application of big data and its technology in the process of ideological and political education expands and extends the knowledge information resources and technical capacity resources of ideological and political education. Secondly, in terms of negative impact, Yuan Zhounan proposes that artificial intelligence in specific teaching activities will lead to risks such as "virtual connection", prejudice implantation and infiltration of Western ideology.[14] From the perspective of block chain technology, Wu Kai points out that block chain technology will weaken the dominant position of ideological and political educators and dilute the humanistic spirit of ideological and political education.[15]

2.4. Research on intellectualization and datalization of ideological and political education

Since the 18th CPC National Congress, the CPC Central Committee with Comrade Xi Jinping as the core has attached great importance to the important role of AI and big data in China's "Four Comprehensives" construction and network power strategy, and has formulated and issued a series of policies and documents to promote its development. Therefore, the deep integration of artificial intelligence, big data and other technologies with ideological and political education has become the focus of academic circles and research direction. Firstly, on the formation process of intellectualization and datalization of ideological and political education, Wu Manyi and Wang Lige put forward that the intelligent drive of innovation and development of ideological and political education constitutes the basic principle of intelligent development of ideological and political education.The intelligent drive of ideological and political education is reflected in the following aspects: first, the intelligent drive can show the cooperative situation of multiple subjects in the innovative development of ideological and political education; Second, the intelligent driver automatically captures the activity marks and data information from the subject and object of ideological and political education for analysis and processing by means of the kernel of artificial intelligence information processing and simulated decision making. Third, the intelligent drive focuses on the educational requirements and goals that ideological and political education should achieve, and pursues precision and science. Fourth, intelligent drive establish an order system through data control of individual information security, network ethics and law.[16] Liu Hongda and Yang Lingzhen also propose that ideological and political education should establish an intelligent application system based on the modeling of big data. This intelligent application system mainly includes a full-process dynamic information management system, a three-dimensional information management platform for ideological and political education activities, a digital new media management and monitoring platform, a full-sample big data analysis and decision-making system, and a specialized big data research platform.Secondly, about the ideological and political education of intelligent and big ecological system formation process of digital research,Liu Xiaoling ,Dong Xingbin propose that under the wave of wisdom of ideological and political education, new ideological and political education intellectualization ecological system based on big data, centered on algorithm and model innovation and supported by powerful computing power is generating.[17]

3. Foreign research situation

In foreign countries, there is no concept and expression of "ideological and political education" and "ideological and political work", and ideological and political education is rarely studied as a subject, so there is no relevant results of thinking and research on intelligent media of ideological and political education in a strict sense. But foreign scholars from different perspectives, such as education, communication, ethics carried out extensive and in-depth on intelligent media of ideological and political education, the research mainly can be divided into three parts: the application of intelligent technology in education , the intelligent media, and the people's moral development in information society.

3.1. Research on the application of intelligent technology in education

The application of intelligent technology in education and teaching makes intelligent education become a new stage of education development. Studies on the application of intelligent technology in education can be divided into three aspects: First, the application of artificial intelligence in classroom teaching, some scholars believe that artificial intelligence can improve the pertinence and effectiveness of education and teaching activities. Masters Ken and Michael J believe that the application of artificial intelligence in education is gradually mature. It participates in students' learning in a new way and helps teachers improve teaching efficiency.[18] Holotescu has developed a MOOC Buddy teaching robot, which can provide students with personalized teaching plans and plans according to their own characteristics and needs. Bayne has developed an intelligent teaching robot, Botty, and after applying it to teaching practice, has found that it can play a great role in helping teachers' teaching activities, making teaching activities more efficient and promoting the harmonious relationship between teachers and students.[19] Sofia B.D proposes that the learning management system (LMS) developed by using artificial intelligence and uncertainty modeling technology can effectively support higher education institutions to develop online learning mode ,mine LMS user data and reveal the level of macro analysis at the level of micro evolution.[20] P. Garcia, S.Schiaffino and A. Ammandi propose that in the

context of artificial intelligence, the enhanced Bayesian model can obtain course evaluation to infer students' learning style and improve the accuracy of data prediction. Thirdly, some scholars have reflected on the relationship between intelligent technology and education.[21] Bernie Dodge, the founder of Web Quest, believes that education is an educational activity rather than a mechanized assembly line, and schools should not become technical mechanical operation factories. He points out that "educational technology should not aim at pursuing new technology, but should aim at whether it is really meaningful to education. Technology should effectively integrate course teaching and learning in accordance with the law of education rather than undertake other expectations and functions, so as to realize the deep integration of human development law ".[22]

3.2. Research on intelligent media

The research on intelligent media in foreign countries started earlier, which is due to the mature development of intelligent technology. The problem of intelligent communication media can be sorted out from the aspects of connotation, method application, dilemma and challenge. In terms of connotation, Mumford believes that electric media, which can improve the speed of human information interaction and broaden the scope of information dissemination, has become an intelligent medium. But it is clear that the extension of intelligence through electric media is still in its infancy, and broader connections are yet to be made.So Mumford goes on to comment: "They require deeper perception and higher intelligence." [23] N.Latar clearly proposes that intelligent communication media relies on two technological cornerstones: big data and artificial intelligence.In terms of method application, some scholars believe that artificial intelligence mainly provides personalized content and services for different users by collecting and analyzing their data.B.Torres and A.González propose that artificial intelligence technology can analyze user ontology based on user data and produce personalized content for it, simplifying the information retrieval flow of users.[24] Kevin Kelly believes that big data, artificial intelligence and other technologies can realize ubiquitous information tracking, information interaction and information filtering, which means that human beings can integrate multiple aspects of user information into a portrait at a favorable price, which can guide the development of any required customized services.In terms of dilemma and challenge, scholars mainly focus on information cocoon house, ownership of algorithm rights and technical ethical issues.[25] DANDEKAR P, GOEL A and LEE D T proposed that recommendation algorithm technology would narrow users' access to information and gradually promote the formation of "information cocoon" by users, leading to the phenomenon of "homogeneity within the group" and "heterogeneity between groups". None points out that the advantages of algorithm operation can increase users' dyslexia by using user agreement clauses, and even judge users' actions according to user semantic parsing algorithms, so that users' information is almost transparent.

3.3. Research on the moral development of people in the information society

There is no specific ideological and political education research abroad, we cannot obtain directly on the information society, the smart media and related issues between the ideological and political education research, but the influence of information technology on people's thought, behavior and moral conduct can be seen through combing the relevant research on people's moral development in the information society. On the one hand, from the perspective of ethics, Deborah Johnson proposes that information technology has changed traditional ethical issues.[26] Shirley Turk has proposed the information society is changing the traditional interpersonal and social activities, and also changing the normal order of interpersonal relationship, so that the "ethics" exit from the natural ethics field. She believes that Internet can make the person suffered in the unconscious mental numbness syndrome, lost the reality and effective moral judgment. Secondly, from the perspective of philosophy of technology, some scholars have criticized the harm of the development of technology to the society and people's moral and spiritual life.[27] Marcuse believes that technological rationality transcends the original scope and expands to political rationality, and realizes the manipulation of society as a new totalitarianism. Philosophy and art have lost their effectiveness as negative forces, and become the appendages and accomplices of developed capitalism, which makes people unable to correctly understand and judge the actual situation of the whole society, and then alienated into people who lack spiritual life and lose the uniorientation of creativity, negation and criticism.[28]

4. Summary and evaluation

Through the literature review,it can be found that the existing domestic and foreign research achievements are abundant in indirectly related to this thesis, but the direct related results are relatively rare. At the same time, the research perspectives of scholars are involved in pedagogy, communication, sociology, ethics and so on, these studies is closely related to the intelligent media of ideological and political education, it provides important reference for the theoretical research part of this thesis. Firstly, the research perspective of intelligent media of ideological and political education is constantly enriched. It can be seen from the reviewed literature that the research on intelligent media has developed from single discipline to multi-discipline. The research perspective of scholars is no longer limited to single discipline, but to explore the development, application and existing difficulties and challenges of intelligent media in ideological and political education from the perspective of comprehensive disciplines. Secondly, the research content of intelligent communication media is deepening. Academic circles study the media, media of ideological and political education, the impact of information technology on ideological and political education, intellectualization and datalization of ideological and political education and a series of related issues, the research content and research field keep pace with The Times and continue to expand and deepen. Especially at present, with the rapid development of science and technology, big data and artificial intelligence technology are widely used, people's thought concept, value orientation and behavior have changed to a considerable extent.Ideological and political education media also presents the trend of intellectualization and digitalization.Scholars have made some progress in the application of intelligent communication media in ideological and political education in this period and in guiding people to rationally understand intelligent media, and they have published more and more relevant articles in high-level journals, which fully shows that the academic circle attaches great importance to this issue.

However, at the same time, we should also see that there are few achievements directly related to the intelligent communication media of ideological and political education in the existing research, so there are still some deficiencies.First, from the perspective of foreign studies, there is no such concept expression as "ideological and political education" in foreign countries, therefore, the research on intelligent communication media of ideological and political education in a strict sense has not been seen. Second, through literature review, it can be found that most of the research results on intelligent media focus on communication, and most of them discuss intelligent media from the technical level, while there are few direct theoretical and systematic studies on intelligent media in other disciplines.Third, the relevant domestic research is not comprehensive enough, the basic problems of intelligent media of ideological and political education need to be further studied.The academic circle has not clearly defined and explained the connotation and extension of intelligent communication media of ideological and political education. The existing research mainly focuses on the opportunities and challenges brought by intelligent technology to ideological and political education and ideological and political education.It can be seen that the research on the intelligent communication media of ideological and political education is still scattered and has not formed a complete system.

To sum up, there has been some theoretical progress in the research of "intelligent media of ideological and political education" at home and abroad, which provides useful theoretical reference for the research of "intelligent media of ideological and political education" in the new era, but there are still many deficiencies and weak links.In general, the research on "intelligent media of ideological and political education" needs to be continuously deepened, the formation mechanism and principle behind it should be explored, and the theoretical research should be actively promoted to guide the practice of ideological and political education and improve its pertinence and effectiveness.

References

[1] Shao Peiren.(2015).Communication studies (3rd Edition).Beijing,Higher Education Press,215.

[2] Yu Guoming.(2021).The Evolution Logic of Future Media: The Iteration, Reorganization and Sublimation of "Human Connection"──From the " Age of Context" to the " Metaverse" to the Future of the "Mental World".Press Circles (10),54-60.

[3] Liu Jianyun,Qi Yuan,Wang Kun.(2016). Introduction to Communication. Beijing, China Social Sciences Publishing House, 281-283.

[4] Shao Peiren, Hai Kuo.(2005).General theory of mass media.Hangzhou,Zhejiang University Press, 6-8.

[5] Liu Jianyun,Qi Yuan,Wang Kun.(2016).Introduction to Communication.Beijing,China Social Sciences Publishing House,283-287.

[6] Li Bin.(2009).Mass Media.Beijing,Tsinghua University Press,138-141.

[7] Wang Xuejian,Liu Qiang.(2012).New media and ideological and political education in universities. Beijing,People's Publishing House,141.

[8] Zheng Yongting,Liu Shulin.(2021).Principles of ideological and political education.Beijing,Higher Education Press,228-238.

[9] Ren Yanni.(2019).Study on the dissemination effectiveness of ideological and political education for college students.Beijing,China Social Sciences Publishing House,125-131.

[10] Zhang Yu.(2020).The main characteristics, historical development and influence of the media of ideological and political education.Journal of Ideological & Theoretical Education(12),124-128.

[11] Ren Yanni.(2019).Study on the dissemination effectiveness of ideological and political education for college students.Beijing,China Social Sciences Publishing House,124.

[12] Zhou Qi.(2020).Mass media and the evolution of ideological and political education practice.Journal of Ideological & Theoretical Education(07),119-122.

[13] Wu Manyi,Ye Benqian.(2020).Systematic interconnection: the foundation of innovation and development of ideological and political education in the era of big data. Chinese Journal of Social Science(010).

[14] Yuan Zhounan.(2020).Artificial intelligence embedded in ideological and political education: background, basis and path.Journal of Ideological and theoretical Education(8),94-99.

[15] Wu Kai.(2021).Blockchain empowers the technical logic, risk challenges and practical strategies of ideological and political education.Journal of Ideological Education Research(06),43-48.

[16] Wu Manyi, Wang Lige.(2019).From precision to wisdom: an analysis of the fundamental situation of innovative development of Ideological and Political Education.Marxism and Reality(04),198-204.

[17] Liu Xiaoling, Dong Xingbin.(2020). Enhancing "code power" : the development requirements of ideological and political education in the era of big data. Chinese Journal of Social Science, 2020-09-02(010).

[18] Masters Ken. (2019). Artificial intelligence in medical education. Medical Teacher(2),23-33.

[19] Bayne S.(2015).Interventions in automated teaching. Teaching in Higher Education(4),455-467.

[20] Sofia B.D, Sofia J.H, Leontios J.H, etal. (2015). Fuzzy cognitive mapping of LMS users'Quality of Interaction within higher education blended-learning environment. Science Direct,7400-7412.

[21] P. García, S. Schiaffino, A. Amandi. (2007). An enhanced Bayesian model to detect students' learning styles in Web-based courses. Original Article,305.

[22] Yang Xiaowei,Jin Xuecheng, Yang Fan.(2006).Educational modernization: the dialogue between theory and technology -- the dialogue between pedagogy principle and educational technology. Research on Open Education(5),11-14.

[23] Mumford.(2014).Technology and Civilization.Beijing,Beijing Architecture and Architecture Press,214.

[24] B. Torres, A. González.(2016).Evolution of the semantic web towards the intelligent web: from conceptualization to personalization of contents. Media and Metamedia Management, 419-427.

[25] Kevin Kelly.(2016).Necessity.Beijing,Electronic Industry Press,1.

[26] Tom Forrest, Perry Morrison.(2006).Computer Logic.Beijing,Peking University Press,9.

[27] Sherry Turkle. Virtuality and its Discontents.(1996). Searching for Community in Cyberspace. The American Prospect(24):50-57.

[28] Herbert Marcuse. (2008). One Dimensional Man.Shanghai, Shanghai Translation Publishing House, 2.