The Future Pattern of Ideological and Political Education In Colleges and Universities under the Meta-Universe Background

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Abstract. The meta-universe with the typical characteristics of digital twins, immersive experience, virtual dopes, simulated reality and free creation provides practical possibilities for empowering ideological and political education. The immersive experience, intelligent communication and digital intelligent transformation of the meta-universe have innovated the future pattern of ideological and political education, and promoted the virtual transformation of educational subjects, the embodied transformation of educational objects, the three-dimensional transformation of educational methods and the digital transformation of educational fields. The precision teaching, intelligent learning and immersion experience brought by it provide a new choice for ideological and political education, and provide a broad application scenario for empowering ideological and political education. Under the concept of co-creation, co-construction and sharing, the ideological and political education of meta-universe empowerment should cooperate with the responsibility and division of labor of the state, society, schools and teachers, effectively avoid ethical challenges, technical risks and security risks, and promote the high-quality development of ideological and political education.

Keywords: meta-universe; Ideological and political education; Pattern construction; Application scenario; Practical approach

1 Introduction

The meta-universe provides a brand-new breakthrough environment and tool for education, and offers infinite possibilities for promoting the deep integration of traditional advantages of education and information technology, also for the ideological and political education immersive interactive environment creation, high simulation game teaching provides the field. The yuan-universe + education will become the new pattern of the future education development, and the yuan-universe ideological and political education will certainly become the future direction.It s characteristic structure is as follows:(Figure 1)
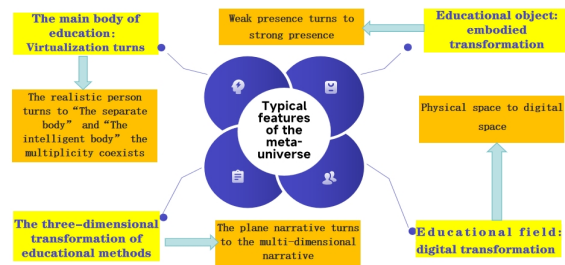
Figure 1 Fundamental features of the meta-universe

2 Typical Characteristics

The intelligent interactive space created by the meta-universe shows such distinctive features as deep immersion experience, embodied social network, free creation of groups, and coexistence of virtual and real. The immersive experience, intelligent communication and mathematical transformation of the yuan-universe have created a brand-new paradigm for ideological and political education, and innovated the future of ideological and political education.

2.1 The main body of education: the virtual turn

As the organizer and implementer of ideological and political education, the main body of ideological and political education is a realistic person with definite direction in the current technical context and educational field. The meta-universe has fundamentally changed the existing form of the main body of ideological and political education, showing the multi-coexistence of"Split-body" and"Intelligent-body", from the physical existence to the virtual existence of"Split-body". First of all, with the help of digital twinning technology, the physical reality of the projection of the digital virtual man, virtual man has broken the shackles of the real man, is no longer a dependency of the real man, the body man (Real Man) and the Incarnation Man (Virtual Man) have been separated. The virtual man carries out the practice of ideological and political education independently. Secondly, with the development of the meta-universe, the main body of ideological and political education will further surpass the real person and the virtual person based on the digital twin technology, in its place are intelligent people with the characteristics of real people, synthesized by pure technology. It can be transformed into different educational subjects according to the different needs of educational objects, and provide intelligent service and individualized guidance in the same field of ideological and political education in the form of multiple identities. The subject of ideological and political education in the field of meta-universe shows an obvious virtual turn, that is, the single body subject turns to the multiple virtual subject.

2.2 Educational object: embodied transformation

Ideological and political education must highlight the status of the object of education. The internalization and externalization of the content of ideological and political education in the field of meta-universe is based on the strong attraction to the object and the sustained presence. It is difficult for traditional network ideological and political education to fully personalize and feel the perception and experience of the system. The ideological and political education

in the field of meta-universe constructs the field of mathematical intelligence education by imitating the real world into the digital world through the interconnection of reality and virtual. The educational object in the network space, which is formed by the technology interaction of block chain, artificial intelligence and Internet of things, obtains the immersive learning experience of autonomy, integration, embodiment and individuation. The meta-universe is a new world with the combination of reality and virtual reality, realistic situation and presence of body and mind, it gives the educational object a strong"Sense of presence" in the fully immersive experience of embodied interaction. This kind of intense embodied interaction and real context experience makes the learning field of educational object more flexible and real. The yuan-universe pushes the object of ideological and political education from the"Weak presence" of the body to the"Strong presence" of the interaction of the body, and impels the object of education to the transformation of the embodiment.

2.3 The three-dimensional transformation of educational methods

The traditional network ideological and political education is usually based on the plane-type curriculum teaching, showing a one-way, closed and passive characteristics. The main body of education has been dissimilated into instrumental and instrumental existence. The independence and initiative of educational object are neglected, which results in the loss of subjectivity and authenticity of educational subject and object. In the field of meta-universe, the concrete scene of autonomy, openness and three-dimension is constructed. The educational subject turns from content-oriented to situation-oriented, and the educational object turns from passive acceptance to active participation. Equal participation, wise companionship, embodiment of situation and guidance of empathy have become the new normal. The meta-universe narrative space also presents three-dimensional, the meta-universe through the construction of virtual and real fusion of narrative new space, with the support of digital intelligence technology, the object of education can cross the boundary between the virtual and the real, enter and exit freely online and offline, choose freely in and out of school, change freely in and out of class. In the digital social classroom created by the meta-universe, the educational object can not only get the same experience in the real world, but also enjoy the sense of gain and pleasure that can not be got in the real world scene. The meta-universe also promotes the three-dimensional narrative. The role-playing of educational objects across time and space in the field of the meta-universe, the holographic experience of seeing, hearing, touching, smelling and smelling in the state of selflessness in the way of whole-body participation in the overlap of identity of"He-me" and"Self", three-dimensional empathy in the heart-to-heart, soul-touching narrative of education.

2.4 Educational field: digital transformation

The educational field directly influences the thought, behavior, value orientation and behavior habit of the educational object. The ideological and political field constructed by the meta-universe is a kind of virtual space supported by data technology. Firstly, in the dimension of perceived environment, the meta-universe constructs a new pattern of digital and digital ideological and political education environment. It surmounts the gap of the physical world, makes the field of ideological and political education more realistic, and makes the educational object immerse in the intelligentized situation of blending reality and virtual reality, so as to optimize the perceived environment. Secondly, in the dimension of information environment, the meta-universe relies on digital twinning technology, augmented reality technology, Digital Stand-in technology and brain-computer interface technology to

realize the intelligent operation of educational information database and the precise connection of educational information, the digital feature of educational field is more typical. Finally, in the dimension of cultural environment, the meta-universe is derived from the number of intelligent free and equal world, the realization of the harmonious coexistence of the interpersonal relationship between the subject and object of ideological and political education, the openness and tolerance of the field of communication, and the co-creation and sharing of the value norms have strengthened the value identity and emotional identity of the educational object, [1] to make the educational and humanistic environment more harmonious. The meta-universe has reshaped the cognitive environment, information environment and value environment of ideological and political education, and realized the digital transformation of the field of education.

3 Innovation Mechanism

As"The innovation singularity of educational transition and upgrading in the intelligent age", [2]the meta-universe provides a new choice for ideological and political education with its precise teaching, intelligent learning and immersive experience, it provides a realistic possibility for the application scenario of ideological and political education.The schematic diagram of ideological and political education in the meta-universe is as follows:(Figure 2)
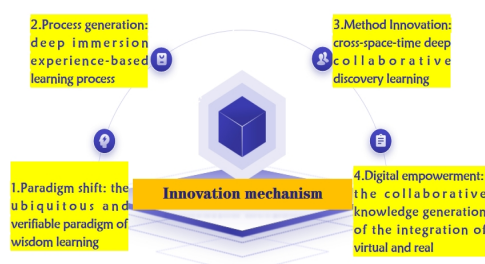

Figure 2 The mechanism of ideological and political education in the meta-universe

3.1 Paradigm shift: the ubiquitous and verifiable paradigm of wisdom learning

Learning paradigm is"The sum of a series of learning behaviors that learners can adopt, popularize easily and effectively in order to form a future-oriented mental structure." [3]objectively speaking, traditional learning paradigms are too prominent and emphasize acceptance and mastery, and education object learning has become a process of passive acceptance and memory. The meta-universe has changed this situation and promoted the paradigm of learning to Universal and verifiable wisdom. Universal verifiability means that the subject and object of education can carry out confirmatory learning activities across time and space according to the needs of learning in the meta-universe space. The ubiquitous verifiable learning paradigm breaks through the bottleneck of the traditional learning paradigm, such as abstract discussion in classroom, difficult to understand by self-study and difficult to realize by creative learning. In its place are the free-setting of research hypotheses, the generation of intelligence for program validation, and the continuous improvement of learning processes. This learning paradigm ensures the scientific authenticity of hypothesis testing results and the high mobility of learning programs. The ubiquitous and verifiable wisdom

learning paradigm provides guarantee for the pertinence and effectiveness of ideological and political education. The ubiquitous and verifiable wisdom learning paradigm fits the characteristics of the OBE concept, it enhances the initiative of the object of education, reflects the creativity of the learning process, ensures the reliability of the inquiry conclusion and the firmness of the value identification.

3.2 Process generation: deep immersion experience-based learning process

The cognitive process of educational object is a cyclical process from perceptual knowledge to rational knowledge, and then from rational knowledge to practice. Therefore, deep immersion in the learning process maximizes the low latency, fine positioning, high fidelity, and high quality of learning. The deep immersive learning of the educational meta-universe with 5G (6G) + AR (VR) breaks through the limitation of the fixed classroom and limited online learning environment of the traditional experiential learning, create a virtual and real symbiosis, the environment, man-machine integration of the environmental field. The boundless, interactive, pleasant and embodied nature of learners' experience, reflective observation, abstract generalization and action application make the perceptual acquisition, connotation transformation, comprehension acquisition and extension transformation free and silent. The experience of learning, the process of transformation and knowledge creation, comes naturally and deeply. Deep immersive experiential learning generally experiences four links: concrete experience, reflective observation, abstract summary and action application. The object of education first interacts with people, equipment and environment in the meta-universe through brain-computer interface, human-computer interaction technology and intelligent feedback. Then the subject and object of education can realize divergent learning and connotation transformation through seamless docking and perfect fusion of embodied experience and reflective observation. Then the object of education is abstracted, explained and concluded. Finally, the educational object carries on the hypothesis verification, the practice application and the knowledge transfer through the self and the group creation.

3.3 Method Innovation: cross-space-time deep collaborative discovery learning

The meta-universe depth fits in with the theory of Discovery Learning, which provides learners with vast amounts of learning materials while personalizing the environment and conditions they need, in the process of immersing experience, embodied social interaction and group creation, "learners think independently, explore independently and master the rules. In discovery learning, learning resources are the key to effective learning"[4]. The quality of learning resources directly affects the occurrence, development and effect of learning. For the ideological and political education with strong ideological, political and theoretical nature, the traditional educational resources are mainly in the form of text, picture and video. The meta-universe can provide the learners with three-dimensional or even four-dimensional all-round perception space, the all-dimensional experience condition of seeing, hearing, touching and smelling, and the all-round perception environment of knowing, knowing and doing, to support learners' active discovery, deep collaboration and group creation. Cross-spatiotemporal deep collaborative discovery learning experiences four stages: problem-posing and problem-solving, problem-solving environment creation, group collaborative problem analysis and solution discussion, and intelligence engine promoting optimal solution analysis. First of all, "the meta-universe through the creation of a problem scene or problem-solving situation to trigger learner autonomy to ask questions"[5]. Then, the meta-universe creates a problem-solving learning environment for learners by means of

intelligent problem synthesis with the help of data integration function and group creation function. Then, the learner uses the meta-universe object to be able to explore, the tool may manipulate, the data may monitor the function, the group cooperation, the group creation, the instant, the continuous improvement plan. Finally, the learner uses the wisdom study companion, the big data, the artificial intelligence to carry on the scheme diversification design, the best scheme can be selected by using the presupposition of the scene of the meta-universe, "the verification of the conclusion, and the tracing function of the exploration to verify the solution of the problem"[6].

3.4 Digital empowerment: the collaborative knowledge generation of the integration of virtual and real

The fusion of the real and the virtual is a typical feature of the meta-universe, with the help of this feature, learners can freely leave the virtual and real world and verify and improve the theory and practice in time to generate knowledge, which is called collaborative knowledge generation. "This knowledge generation paradigm solves the problems of blocked communication between virtual and real environments, disjointed integration of theory and practice, and limited collaborative path between individual creation and group"[7]. Through the virtual and real role in the virtual and real freely switch between the improvement of the solution to the problem, in the digital twinning technology under the analysis and verification, under the co-creation of the main body of education, the learners and the inhabitants of the meta-universe, the collective coordination and knowledge improvement are carried out. The five steps of collaborative knowledge generation are the creation of virtual-real environment, the cross-border technical support of virtual-real fusion, the cross-border problem solving of virtual-real fusion, the cooperative and interactive verification of virtual-real community, and the knowledge creation of group intelligence generation. First of all, it creates the interactive connection between the real space and the meta-space by means of the meta-space, which creates the conditions for the learners to explore and map their behaviors in the virtual-real space. Secondly, with the help of artificial intelligence, block chain, human-computer interaction, Internet of things, learning analysis and other key technologies, to provide technical support for the learners to solve problems by switching virtual and real space at any time and anywhere. Third, the free boundary-crossing, deep immersion and blending of the virtual and real in the education of the meta-universe will break the limitation of space-time and remove the shackles of boundary-crossing, and the learners will solve problems by crossing the boundary in the blending of the virtual and real. The fourth is to establish a learning community under the above-mentioned environment and conditions, and to test the research hypothesis alternately by using the high-fidelity, real-time interaction and life-cycle monitoring functions. The fifth step is that the learning community formed by the main body of education, the learners and the inhabitants of the meta-universe exerts the function of group creation, and innovates the solution to the problem constantly, "and finally realizes the knowledge creation generated by the group intelligence"[8].

4 The Implementation Path

The ideological and political education must promote the ideological and political education of the meta-universe by means of the meta-universe empowerment and strategic thinking, in the state, society, schools, teachers all levels of preparation.The road map of realizing the ideological and political education of the yuan-universe is as follows:(Figure 3)
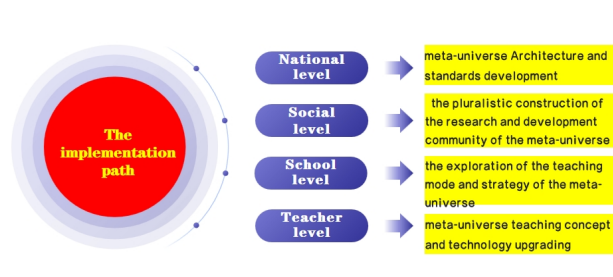
Figure 3 The realization path of ideological and political education in the meta-universe

4.1 National level: meta-universe Architecture and standards development

The change of ideological and political education brought about by the yuan-universe will be revolutionary, so we must deal with it rationally, make use of it rationally and develop it normally with strategic thinking, and plan from the national level so as to gain strategic initiative. First, to establish the meta-universe technology standard, we must realize the function modularization, the interface standardization, the data format unification under the premise of the international coordination, and make all kinds of meta-universe architecture technology standardization or standards compatibility. Strengthen the top-level design of new digital infrastructure construction, achieve the organic combination of scientific and technological development and ideological guidance, highlight the integration of mainstream ideology. Second, the construction of "Building Block"[9] development framework. The demand of the subject and object of education is developing and changing, the supply of resources is continuously abundant, and the development of technology is iterative. This framework must be supported by the state in order to virtuous circle, for the meta-universe to enable ideological and political education continued to exert force. Third, the introduction of laws and regulations related to the meta-universe. It is imperative to define the legal boundary between "Real people" and "Digital people" in the form of law, and to establish a meta-cosmic social public order and moral and ethical matrix, to prevent the meta-universe become a moral "Blind spot" and the law "Black Hole", to create a clear wind of the meta-universe space.

4.2 Social level: the pluralistic construction of the research and development community of the meta-universe

The construction of the meta-universe must accumulate the strength of the whole society, especially the creation of the educational meta-universe with the support of the advanced technology companies. First, establish a research and development community. First, to form a government-led research community with the participation of all sectors of society, to build a benign digital ecology on the basis of enhanced resource sharing and enhanced human-computer interaction, and to circumvent the compensatory effects, better guidance of public opinion and accurate thinking of politics. The other is to form a three-party research and development community in the field of meta-universe, avoiding the loss of humanistic care, the departure of value edification and the departure of thought-led. Second, guide science and technology to good. We should keep the balance between technological progress and value guidance, avoid losing subjectivity or falling into "Technology addiction"[10], and avoid the moral indifference, discredit of identity and ethical distortion caused by digital cocoon, lead and promote science and technology to the good with correct value. Third, the implementation of the main responsibility. We must create a meta-universe space from the

angle of carrying out the fundamental task of Lideshu people. Individuals, enterprises and governments must carry out the principal responsibility with a high sense of political responsibility. The government should increase its investment in the construction of the yuan-universe, enterprises should strengthen the development of the yuan-universe, and individuals should strengthen their awareness of the use of the yuan-universe, so as to avoid the ideological kidnapping caused by the transcendence of science and technology over the function of political ideology, we should correct the technical boundary from the dimension of promoting the co-governance and supervision of society.

4.3 School level: the exploration of the teaching mode and strategy of the meta-universe

Schools must adapt to the meta-universe and then create a new teaching model to explore the meta-universe to enable the ideological and political education strategy. First, the mode of inquiry. First, we should strengthen the research on the ideological and political education of the yuan-universe, and make a scientific judgment on the mechanism, internal law and countermeasures of the ideological and political education of the yuan-universe, the construction of the framework system provides theoretical guidance. Second, we should actively construct the discipline system of ideological and political education, which embodies the technical characteristics of individuation, differentiation and differentiation on the basis of shaping, serving and educating people. Third, we should try to accumulate a large number of digital teaching resources, so as to realize the transformation of educational mode from plane narrative to three-dimensional narrative, and from physical space-time to digital space-time. Second, strategic inquiry. First, the application of technology to correct the boundary, alert to the digital main crisis, personal privacy invasion, technology addiction. The second is to avoid the compensation effect of virtual reality, adhere to the ideological and political education of the nature of real people, reality as the purpose of public opinion and accurate ideological and political guidance. Third, adhere to the mainstream of socialist ideology to establish a"Meta-universe" algorithm logic, and enhance the number of members of the emotional attribution, identity and value consensus. Adhere to the yuan-universe field education, adhere to the mainstream values of the whole field embedded, to achieve the"Road to bending" and"Road to technology" the combination.

4.4 Teacher level: meta-universe teaching concept and technology upgrading

The ideological and political education in the era of the meta-universe must adhere to the idea of subjectivity, individuality and openness. First of all, teachers should change their identity, change knowledge authority to accompany wisdom, adhere to the students and learning as the center. The second is to adapt to the yuan-universe ERA students learning differences, personalized characteristics, to"Flood irrigation" to"Accurate drip irrigation" to meet the needs of students personalized learning. The third is to break the space-time shackles, in the digital world and the physical world deeply embedded in the field of the universe, in the creation of teachers and students to achieve value guidance. The second is the improvement of Teachers' skills. Learning technology is a new kind of educational productivity, the integration of technology and education and teaching will lead to a new learning revolution. The meta-universe endowing is the future of ideological and political education. Therefore, teachers in the yuan-universe era must either enhance their own skills or use digital twins to enhance the value of deep empathic experience with learners, or the technical authority to achieve the correction of learners to prevent false spirit of satisfaction.

5 Conclusion

The meta-universe promotes the generation of wisdom guided by the value of ideological and political education through immersive experience and intelligent communication. However, the decentralization, embodied interaction and virtual-real symbiosis of the meta-universe often lead to value disorder, technology addiction and responsibility dilution, which deviate from the original intention of ideological and political education. Therefore, it is necessary to strengthen the legislation to purify the meta-universe, strengthen the capital control and perfect the supervision mechanism, strengthen the humanistic care and regulate the use of data, and effectively avoid ethical challenges, technical risks and security risks.

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