

The Realistic Challenge and Cracking Path of Educational Subjectivity in the Digital Era

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Abstract: Digital information technology contains great potential for change, so that almost all human activities and related scenes can be transformed into data, and its volume is almost infinite. The era of digital intelligence not only promotes the systematic reshaping of the mode of production, but also promotes the extensive reform of education and teaching. The intellectualization of education has become the key direction of the current educational reform and practice. The era of digital intelligence is the spatio-temporal direction of the study of educational subjectivity, which frames the research scope for the analysis of educators and trainees, and also makes the solution to the subjectivity dilemma in the field of education more problem-oriented and the flavor of The Times. On the basis of confirmed the feasibility of existing research, this study will be under the age of people and technology as the breakthrough point, combined with the realistic problems of education reform and innovation, to educators, educated and subjectivity relationship as the three major objects, continue to expand the interpretation of the horizon and theoretical space, strive to more comprehensive to explore the subjectivity problem under the background of the new era.

Keywords: Digital technology; Educational subjectivity; Dilemma review; Path exploration

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1. Introduction

With a new round of continuous innovation of digital information technology, social in various fields to accelerate to the direction of digital, intelligent, information, everything interconnection, data driven, software definition, platform support, intelligent leading, digital simulation is building a new system in all walks of life, marks the human society into a new era orientation—intellectual times. Under the comprehensive impact of "number" and "wisdom", the traditional education mode is empowered by technology and the value reconstruction, which profoundly affects and even changes the established goals and realization process of education. The subjectivity ability and status of the educators are declining day by day, and the subjectivity consciousness and cognition of the educators gradually evolve to the "brain in the cylinder" under the technical discipline, while the teacher-student relationship as the "cornerstone of education" produces alienation and transmutation in the infinitely expanded digital space. Therefore, it has become an important issue to promote the high-quality construction of education in the new era to comprehensively examine the practical dilemma of the subjectivity of education in the era of digital technology and the comprehensive development of education in the new era.

2. Literature Review

In the West, the discussion of human subjectivity started early, which can be traced back to the suppression of

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human nature and the self-reflection of human beings, such as "man is the measure of all things" in the ancient Greek school of the wise Agent. Marx completed the comprehensive understanding of human subjectivity, he analyzed the capitalist private ownership and human "alienation labor", on the basis of both highly affirmed the independence of people as an individual, and reveals the truth of the capitalist private property and currency—both as the object of enjoyment, and as the object of activity—to the existence of people. Focusing on the application and development of subjectivity thought in the field of education, thought to achieve "different common nature and sharing between the interaction and communication" education as an important way to promote subjectivity and present, Gerhard Budde think " the highest purpose of education, is to make the growth of the human to know the spirit of life of permanent fan, and have. Because the true purpose of man exists in the relationship with the spiritual life, so the highest purpose of education can also be called humane." (Eduard Spranger), who focuses on personality education, believes that education is not purely cultural transmission. ^[1]Education is education, which lies in that it is a process of awakening of personality and soul, which is the core of education. Dewey, who advocates individual education, put forward many new educational theories, such as "education is life", "education is growth" and "education is transformation". Existentialist educator IELTS Bear (Karl Jaspers) emphasized: "the purpose of education is to make oneself clear the nature of education and their will, in addition, is not to find the purpose of education."It can be seen that in the western education system, self is closely related to the subject and subjectivity, and the central problem of educational subjectivity is how to realize the free and comprehensive development of the subject.

As for the subjectivity of human in the era of digital intelligence, foreign scholars carry out theoretical research from the perspective of "human-technology" relationship. In ontology, Kugram (2018) believes that "the more digital digitalization, the more areas digital forces can influence, and the more challenges individuals face related to digitalization and personal identity."In ontology, Tang Yide (2002) put forward the theory of the human body: first, from the physical dimension, the human body is the flesh and blood with material attributes; ^[2]second, from the political dimension, the human body is the post-modern discourse body in the social and cultural sense; and third, from the technical dimension, the first two bodies will present a new physical state under the action of science and technology. In terms of development, Parker (2015) compared the people in the virtual space to "information man". From birth to death, in addition to a "biological person" in the physical space, personal information in the virtual space database is also accumulating until the formation of a "information man" in the virtual world. Therefore, by examining the relationship of "human-technology" with philosophical thinking, it can be seen that digital technology, while changing the way of social production, life and communication, also redefines the existence of human subjectivity in the era of digital intelligence. ^[3]

In terms of the educational change in the era of digital intelligence, according to Moores Law.Modern digital technology has influenced and even reconstructed the system structure of the whole society, continuously promoted the development of education to present a new form,and promoted the development of a high-performance digital education ecosystem. The following research focuses on two aspects of technology and human, technology and education, and interprets the impact and reconstruction of digital technology on educational subjectivity from the perspective of theoretical research.

3. Systematic Reshaping of Educational Subjectivity under the Background of "People-technology"

Foreign research on the relationship between technology and people is mainly divided into three stages, namely, the imbalance of "person-technology" relationship, the adaptation of "person-technology" relationship under the experience shift, and the integration of "person-technology" relationship under technology mediation. In the unbalanced stage,Heidegger (2005) believed that technology is a way of masking, and attributed the essence

of modern technology to the "frame" (en framing), the essence of human disappeared under the alienation of technology. Neil Bozman divided the evolution of human society into three stages: "tool use", "technology rule" and "technology monopoly". The rapid development of technology makes people at a loss and calls for vigilance to the monopoly of technology on all meaning and value. In the adaptation stage, Tang Yide (2002) divided the relationship between man and technology into embodied relationship, explanatory relationship, its different relationship and background relationship from the perspective of phenomenology, and technology became the intermediary of the intermediary adjustment between man and the world.^[4] Stigler put forward the theory of "replacement", that is, technology makes up for the congenital defects of human survival in the world, forming the human structure of "human-technology", which means that human and technology need to be integrated to perceive the whole picture of the world. In the integration stage, Peter Paul Vibeck's technical moral thought started from the theory of man and technology relationship, Latour actor network theory and Bergmans device paradigm theory, and developed the technical mediation theory from the theoretical and practical levels, trying to build a new "man-technology" relationship. He believed that moral decision-making is the result of the joint action of human beings and technological artificial objects, and that technology plays the normative role of moral "presence" in the form of materialization.^[5] Looking at the transformation process of "human-technology" relationship, technology has gradually evolved from the tools and means for people to make a living into a certain human and inhuman existence with "thought" and behavior ability, and its "subjectivity" is more and more obvious, especially the new generation of artificial intelligence presents the characteristics of interpersonal mimicry. As stakeholders, educational subjects and modern technology, in order to seek their own development, produce conflicts and imbalances in the continuous interaction.

As far as the relationship between digital technology and education is concerned, it is mainly manifested in the overall reform of education driven by digital technology. First, the concept of education. Thomas Kuhn (2018) once said in the *Structure of the Scientific Revolution*, " ^[6] The paradigm theory is often directly implied in the design of instruments that can solve problems." Some scholars regard artificial intelligence as a new tool comparable to human wisdom, and their educational concepts will become different and require different explanations. (Margaret Boden, 2017) The second is the teaching mode. In order to prepare teachers and students for these changes, it is necessary for the intelligent age to bid farewell to the universal "full and" full house " education mode. Anthony Sell and Oladimej Abidoye (2019) summarized four aspects of the transformation of teaching models: using AI to reorganize educational materials, rebuilding the educational environment with artificial intelligence, reshaping the education process through artificial intelligence, and reconstructing education assessment by artificial intelligence. The third is the teaching system. Peter Diamandis and Stephen Kotler (2021) believe that " the modern education system is not fully adapted to the modern society. ^[7] It is the product of the previous era created to meet the needs of the previous world." Therefore, in the field of the era of digital intelligence, technology has realized a systematic reshaping of modern education.

Overview of the foreign intellectual times, "people-technology" relationship, education subjectivity research, focusing on the innovation of digital technology, contemporary education change, etc., from many aspects, demonstrates the current education development and social progress "intellectual", this is our thinking the following extension: digital technology development trend and human subjectivity construction direction, digital technology into the contemporary education reform, digital technology of education subjectivity reconstruction and reengineering, provides a certain theoretical basis and solutions.

4. The Realistic Dilemma of Educational Subjectivity Reconstruction in the Era of Digital Intelligence

Realize the number of intellectual education subjectivity reconstruction, must be three-dimensional analysis

education environment, education carrier and the reality of education mode, and combined with the unique characteristics of the technology development, constantly summarize the realistic root of education subjectivity crisis, trying to explore "technology + education" new mode of education modernization development, so as to realize the essence of the education subjectivity. The following mainly focuses on the conflict between tool rationality and value rationality, systematically expounds the friction and collision between the current virtual space and real classroom, educational subject and multiple collaboration, technology application and educational transformation, and analyzes the practical dilemma of educational subjectivity as a whole.

In the contradiction between instrumental rationality and subject value, instrumental rationality advocates "technology first", which is the concentrated expression of technology idealism, technology optimism or technology determinism. Under the leadership of instrumental rationality, technology is autonomous and constructive, and has the function of realizing transformation and reconstructing the society (Wang Hanlin, 2010); in the practice field, instrumental rationality emphasizes the rationality and effectiveness of human means of free choice through rational calculation, focusing only on the proper efficiency, function, calculation and means (Yan Kunru, 2020).^[8]In thought, the tool rationality of intelligent education advocates that intelligent technology is an intelligent teaching agent with autonomy and can implement the teaching and learning process independently. In terms of effectiveness, the "standard" in the teaching analysis based on the algorithm of students ability cultivation is considered to be more important than the value of human mind and life, and gradually forms the benchmark of individual development ability based on the development value dimension of artificial intelligence development."Therefore, it can be seen that instrumental rationality, to some extent, occupies the teaching space of educators, leads to the solidification of their thinking, seriously destroys the benign development of the teacher-student relationship, and becomes the primary factor restricting the development of educational subjectivity.

In the confrontation between the virtual space and the real classroom, due to the infinite extension of the virtual space, the tension and balance between the reality and the virtual self are torn apart, and the self thus falls into the trap of virtual alienation. In terms of the ethical contradictions, Including the subjectivity of virtual learning space, the weakening of the role of teachers in online teaching, and the behavioral dependence of over-education games (Sun Tianlin Zi, 2020); In terms of the potential risks, Digital teaching is a gradual process from opposition to alienation, By "teachers and students leave the field hidden perception crisis", "digital media deconstruct the teacher-student relationship", "digital viewpoint clamp control thinking logic" (MAO Yingxin et al., 2022) Three major crises constitute, It is easy to make the main body become a servo system of technology "or" into a well-adjusted robot "; From the education center,Virtual space breaks the agglomeration effect of the traditional space, It presents a multi-subject, multi-center and flat spatial distribution pattern of education.The spatial mechanism of "discipline and punishment" is gradually declining, and the intersubjective teacher-student relationship is accelerating to replace the subject-object and teacher-student relationship.(Zou Hongjun,2022) Therefore, under the emergence of digital technology, the erosion and extrusion of virtual space on the real classroom is not only the phased alienation of educational development, but also an important reason for the reduction of educators subjectivity ability and the "fall" of subjectivity status.

In the face of the conflict between educational subjects and multiple coordination, family education, school education and social education have not yet realized the collaborative education in the true sense.Under the comprehensive impact of intelligent technology, there are problems of poor communication between home-school education, dislocation of resources sharing between family and society, and uneven allocation of quality education resources in school and society (Chen Xiaohui, 2022), and the estrangement and differences among the educational concepts among the three. Further, family, school and society as the main body of collaborative education, its behavior anomie presents the characteristics of multi-level, multi-type: teachers kidnapped algorithm and destroy the teaching ecology, parents of technology excessive decentralization cause family education problems, society increasingly difficult to balance education development and technological progress (Lu, 2022), and thus caused the

educated of digital obsession and identity of alienation.^[9]

In terms of technological development and educational transformation, in the face of the convenience and opportunities brought by intelligent technology to the development of education, people are often too superstitious about technological progress, and even gradually regard technology as a machine myth. Based on the Moravik paradox, some scholars believe that the blind application of technology to education will form a double risk. First, education is generated by real virtual transfer, leading to the degradation of physical function; second, education shifts from positive efficiency to passive training, which leads to the alienation of mental function (Shen Lingling et al., 2022).^[10] One side, At the margin of technology applications, The technical algorithm should face up to the "four contradictions" between students development, educational publicity, multi-dimensional education and the uncertainty of educational process (Feng Yonggang, 2022), on the other hand, In the effect of the technical application, Technology integration into education has the wrong way of technology combination, inaccurate technology function positioning, difficult to clearly define the man-machine boundary, In addition, the lack of guidance technology and improper evaluation methods (He Wentao et al., 2021), Its application focus is from the combination of technology and objects (curriculum) to the combination of technology and people, Think about solving the basic problems of how people and technology can cooperate to complete education and teaching activities.

Therefore, the emergence of educational subjectivity crisis is a systemic problem involving many aspects and elements, including the control and manipulation of tool rationality, and the imbalance and destruction of educational ecology, which is mainly reflected in the change of the status of educators, the cognition of the educated, and the alienation and deterioration of the teacher-student relationship. Therefore, only by returning the education in the era of digital intelligence to the position of "people-oriented" and strengthening the value rationality of technology application, can we find out the effective path of educational subjectivity reconstruction.

5. The Cracking Path of Educational Subjectivity

The practical purpose of modern education is to highlight peoples subjectivity and promote peoples all-round development. In the face of the practical dilemma of education subjectivity in the era of digital intelligence, it is necessary to integrate digital technology into the whole process of education development and progress from the perspectives of subjectivity restoration, field reconstruction and technology empowerment, build a diversified and collaborative modern education community, and realize the modernization of education governance and the all-round development of people.

In terms of subjectivity construction, this study analyzes from three aspects: "educator", "educated" and "subject interaction". First of all, teachers should get rid of the triple dilemma of subjective transfer, excess and misconduct, complete the development of the subjective value of self, others and society, and become voice participants, cooperative co-builders and open rational people (Mao Yue et al., 2016), so as to confirm the subjective value of educators. Secondly, the educated should solve the problem of lack of subjectivity through education, adhere to the combination of coordinated development and independent development, comprehensive development and characteristic development, and the combination of personal value and social value (Wu Di et al., 2022), and build a systematic digital education training system. Finally is the main body interaction, through the dismantling of digital media structure properties, guide the teachers and students in the data sources keep objective, calm, with rational reduction digital truth, is the bottom line of interaction between teachers and students in the digital media logic, let the number and wisdom coupling, teachers and students through criticism and reflection against "digital evil", reflection "interaction", eventually to "wisdom" promote digital interaction between teachers and students and for good, is the digital media teachers and students interaction should be state (Mao Yingxin, etc., 2022).

In the construction of educational field, human-machine collaboration makes artificial intelligence become the natural extension and expansion of human intelligence. Complex problems can be solved more effectively through human-machine collaboration, and finally the teaching effect of " $1 + 1 > 2$ " can be realized. Therefore, to maximize the advantages of artificial intelligence in education, must apply man-machine collaborative concept to all aspects of education teaching, need to break through the limitation of the current digital education resources, take "education resources", maximize high quality digital curriculum resources, form an open, sharing, interconnection, and common new mode of digital resources together (ZhuZhiTing, etc., 2022). At the same time, the family as an increasingly indispensable education space is constantly towards education "front desk", to recognize family education value, improve parents quality structure, promote parents digital literacy, make family education become increasingly prominent value of education form and embedded individual education "basic" life (Zou Hongjun, 2022). In addition, the school should update the concept, focus on the scene, clarify the contradictions, lead by the innovative concept of specific teaching scenes, optimize the artificial intelligence technology scheme with the idea of continuous improvement, attach importance to the exploration and practice of interdisciplinary and institutional cooperation, and look for a sustainable development mechanism to help the construction of the future school (CAI Huiying et al., 2022).

On technology can assign education community, some scholars attach great importance to the "home school education" education community construction, put forward to point to the main development goal for education purpose, depth consolidate "five education simultaneously" for education content, build diverse cooperation culture for education mechanism, expand the multi-dimensional cooperation space for the education resources of education community (Liu Zezheng, etc., 2022). In terms of school education, some scholars think that build a new teaching community must introduce "O2O model", on the one hand, using the experience of foreign development MOOC, on the basis of offline teaching practice build rich content, convenient use of online education platform, try to use "online + offline" flipped classroom hybrid teaching mode, such as classroom teaching, the interaction between teachers and students online. On the other hand, we should build an online education environment in which educators actively participate, strengthen the interaction between teachers and students and students, and guide them to organize learning processes according to learning objectives, learning interests and learning orientation (Sang Lei, 2016). From the perspective of educators, some scholars put forward the construction of teachers "education and cultural community", "education resources community", "education cooperation community", "education practice community" and "education service community". Therefore, the construction of "education community" has become the focus direction of the current education reform and innovation.

6. Conclusion

In-depth analysis of the potential crisis of educational transformation of digital technology is the logical premise to reveal the problem of "educational subjectivity", and can provide practical reference for the scientific reconstruction and development of educational subjectivity, which constitutes the research focus of this topic. From the perspective of the overall thinking of the research, digital technology is an inexhaustible driving force for the social progress to promote the development of education, and has become a hot topic in all fields of the current society. However, the "double-edged attribute" of digital technology is becoming more and more obvious in the transformation of education, which affects and even threatens the subjectivity status of educators, blinds the subjectivity cognition of the educated, and causes the "subjectivity crisis" of modern education. When faced with the problems of the "fall" of the subjectivity of educators, the decline of the subjectivity of the educators, and the alienation of teachers and students, it is necessary to analyze the "duality" of digital technology with dynamic perspective, overall perspective and philosophical thinking, and avoid the application of technology free from

educational transformation and subject development. Therefore, the research focuses on how to highlight the value rationality of digital technology, promote the coordinated development of educators and educators, and build a new model of technology-enabled education progress and human development. This is not only the central clue throughout the whole text of the study, but also the value orientation and practical guideline of building an "education community".

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