The Practical Dimension of Syncretic Thinking of "Intelligence and Education"

Jingwen Ji[1,*]

[1]Dalian Art College, Dalian, Liaoning, China
*Corresponding author. Email: jijingwen18@163.com

ABSTRACT

Based on the discussion of human-machine subjectivity in the intelligent age, it will gain insight into the core motivation of the intelligent shift in contemporary education. This paper introduces and summarizes the educational development concept of syncretic thinking, and elaborates the goal of future education and training from basic thinking, creative thinking and cross-border thinking. Combining with the thinking about the reality of artificial intelligence technology, this paper puts forward an estimate of the future development of education, and reconstructs the responsibilities and actions of future education that urgently need to be promoted through the critical selection of current education normalization.

Keywords: education subject, artificial intelligence, syncretic thinking, future education

I. INTRODUCTION

In today's society, intelligent media is rising rapidly with the characteristics of great change, great transformation and great integration. The social form and structure are also undergoing a fuzzy and complex transformation, and have been transmitted to the education industry. In the face of the sudden emergence of artificial intelligence, the integration industry is advancing in depth, and the transformation and development of education industry has become an inevitable trend. In the age of intelligence, it is not difficult to find that education often lags behind the development of technology, and the progress of technology forces education to realize reform. Based on this situation, understanding and combing the origin of the change of education concept in the age of intelligence is the primary basis for thinking about its practice dimension.

II. THE TRANSFORMATION BASIS OF EDUCATION CONCEPT IN THE AGE OF INTELLIGENCE

A. Core motivation

The premise to explore the change of education concept in the age of intelligence is to seek the core motivation driving the change. As animals that are good at using tools to understand and transform the world, human beings have never stopped pursuing the innovation of tools. After entering the age of intelligence, the tool technology has developed to make the virtual, interactive and immersive performance. The

Internet has deeply affected human life. As an important industry to enlighten human cognition and thinking, the internal structure of education is bound to be impacted by intelligent media. In this tide of reform, educators should first understand that the education subjects are human beings, not intelligent agents. Human subjectivity is of decisive significance in the occurrence, process and achievement transformation of education. The reason why human beings have doubts about its subjectivity is that the current humanized intelligent algorithm continues to mature, and technology comprehensively invades and constructs the social reality of human life, which makes human rely on the interactivity and convenience of intelligence at the tool level. However, what human beings need to be aware of is that artificial intelligence, as a limited autonomous agent, can only be engaged in the work of setting and executing its algorithm. Human beings will always be the manipulators of machines for a long time. In the final analysis, the source of artificial intelligence optimization algorithm is always human. The birth of intelligent technology does not replace the appeal and essence of human education. Instead, it requires human beings to change their thinking in the field of cooperation with intelligence, constantly explore and expand the boundaries of science, lead intelligent progress, and stick to their own voice and initiative for technological development. It is to truly realize the intelligent syncretic thinking that drives development with ideas and cultivates ideas with education.

B. *The thinking transformation of intelligence + education*

In the view of pan-media theorists, almost all of the technologies are prosthetic and extend human organs. As the most typical technology with limited self-consciousness in intelligent media, the new material and cultural environment triggered and constructed by artificial intelligence have promoted human beings to enter a new stage of intelligent existence. However, it will be an urgent need for human beings to adapt the way of life and thinking to the age of intelligence quickly. This is also an important issue for the education industry. Starting from the current technological reality, the layout of intelligent paradigm transformation of education and the opening of the syncretic thinking and practice mode of intelligence + education are the fundamental power to accelerate the development of future education subject form into intelligence, the basic methods to promote the optimization of education concept of new media form, and the general trend of macro development of education.

III. PRACTICAL MEASURES OF SYNCRETIC THINKING

Among the challenges posed by the age of intelligence to education, the most important one is the integrated thinking mode of the current changeable media form and education training ability, that is, how to integrate the intelligent algorithm processing system with the experience purification of traditional education itself to form a syncretic thinking. This kind of thinking is the goal orientation of future education, which can be divided into three thinking modes.

A. *Cultivating basic thinking*

Basic thinking is not only to understand the terms of a certain field and some specific terms of details, but to go back to the most basic level to understand and ask the essence of science, follow the principle of "what the essence of things is, why, where it comes from and where to go", analyzes the core state of artificial intelligence and decomposes its practical role in education and training. The "maturity" of artificial intelligence means that the algorithm itself is becoming more and more complex, and the algorithm can assist human to deal with different fields and difficult things, and its essence is to generate operation results through the information processing process. The most promising deep learning algorithm imitates the neural network of cerebral cortex, and processes data through humanoid neural network to get corresponding results.

Only when human beings have an essential inquiry and understanding of intelligence, can the formed thinking be more conducive to the transmission of education. Then, it is not easy to be confused by the high-end appearance of intelligence, and always maintain a positive and solid logical method for the development of technology. It is required to have a comprehensive view of science, understand science, constantly improve and practice the macro basic thinking, and deeply establish the value form of human beings. These are the necessary basis for guiding and producing the syncretic thinking mode, and become the starting point for many disciplines to integrate.

B. *Enhancing creative thinking*

The powerful functions of intelligent media make it have a certain degree of creativity. Different from human creativity, the creation of artificial intelligence comes from finding rules in a huge database, combining with big data analysis to find people's preferences and pain, and then completing the "creation" results through collage of previous works. And human creation must be to explore the essence of a thing as the purpose, integrate their own world outlook and values, and deduce a new expression from the existing things. The real meaningful creation must be to bring forth the new through the old, not to imitate the routine. Real creative thinking is also a kind of exploration ability from nothing to existence, from zero to one, from the existing to the unknown. The current technology drives human beings to recognize and move forward to a higher creative thinking field. AI does not have the advantages that human beings have evolved for thousands of years: natural curiosity, exploration and adventure spirit, imagination, divergent thinking, etc., which are the natural genes for human beings to achieve higher level of creativity. How to become a person with stronger creativity is an important trend of education in the age of intelligence. It is necessary to protect and respect interest and creativity in the process of education practice. In modern education, it sometimes hopes that students will forget the wonderful ideas and remember the correct answers quickly. However, to some extent, it has destroyed the interest based self-creation ability. Without good guidance, the innovation will soon be extinguished. In the current era when many basic learning processes are simplified by technology, encouraging creative thinking is the inevitable direction of education. The most effective way is to maintain students' interest in creation, provide a place for students to achieve creation, and encourage every little progress. Only by cultivating and deeply mining creative thinking in the education stage can human beings surpass artificial intelligence in the future.

C. *Integrating cross-border thinking*

Education in the era of intelligence should play a role in promoting the intelligent turn of human thinking consciousness. It should not only have rational thinking on science at the basic thinking level, but also cultivate and exercise the creativity with clear advantages. The

basis of realizing these two kinds of thinking is that people must have a comprehensive knowledge system, comprehensively control the internal relations between things, fully develop people's intelligence. This integrated thinking method is called cross-border thinking, that is, thinking with big vision, multi angles and multi visions to look at problems and put forward solutions. It is to realize the so-called generalist education, rather than the setting of partiality of agents. At present, the algorithm of agent is relatively mature only in a certain work field, and its essence is to use the whole thinking network to engage in and learn a thing, and its parameters will be optimized according to the corresponding fields and events. Once other fields or events are added, the data of the whole neural network will change accordingly, which is a problem that is difficult to overcome in the process of deep learning of artificial intelligence, and is called "memory disaster". The cross-border thinking is based on the thinking result of the transformation of training mode that education should introduce in the face of the auxiliary nature of agents. Education can enlighten and edify human beings' panoramic cognition of the world, and people can have a more clear choice of development path in the existing space-time. The ability to explore the future is unique and valuable. The basic requirement of building a comprehensive knowledge system is that people should have the general knowledge, find the fundamental connection between disciplines, and initiate the inquiry into the nature of the world and the law of development of things. That is, people should not only have the knowledge, but also have the integrated thinking framework of concepts. Knowledge will no longer be the ultimate goal of future education, and people will organize all knowledge through conceptual thinking framework. Knowledge begins at the micro level and the framework is based on the macro level. Only with the cross-border thinking to integrate knowledge and find commonness in different knowledge can people construct the context in the overall cognition of the discipline. The purpose of education will be to explore the way of integration between disciplines, clarify the difference, and promote the deep integration of cross-border thinking.

The cultivation of syncretic thinking is the source power of the intelligent turn of contemporary education. Human beings can better adapt to the development and changes of the age of intelligence by integrating the knowledge accumulation mode of thinking, and education also finds a balance and progress point between human intelligence and artificial intelligence.

IV. DEVELOPMENT TREND OF FUTURE EDUCATION

The purpose of education is to discover human value, activate human potential and develop human personality. Driven by the double wheel drive of technological innovation and the evolution of thinking form, the boundary between intelligence and human beings has become more and more blurred. Education in the age of intelligence has realized new evolution due to the trend of human-computer integration and symbiosis. The education content will change with the syncretic thinking. At present, in order to realize the educational innovation in the era of intelligence, it is necessary to first think about the normalization and critical improvement of traditional education, deconstruct the old educational thinking, and construct a new intelligent education concept, so as to realize the practice and development of educational syncretic thinking.

A. Normality and criticism

Educators should be more sensitive than most people to distinguish the major changes in the pattern of talent demand in the age of intelligence, and seek the focus shift of training mode from the source of work practice. From the perspective of syncretic thinking, it can be clearly seen that the continuous optimization of artificial intelligence algorithm will occupy more mechanical work modules, which means that the manpower required for repetitive work in the future will be greatly reduced. This makes the traditional education change from "specialization" to "wide integration". At present, AI deep learning neural network can only deal with specific data in a specific field, and can not produce real feelings and understanding of the outside world. Therefore, in the future work, it is doubtful whether human beings can crush AI results in specialized work. However, the broad cognitive basis, deep background knowledge and common sense system growing up with life will lead artificial intelligence for a long time in the future. In the final analysis, the abilities representing human advantages are: the communication ability, the ability of understanding and empathy, the ability of emotional control, etc., that is, in the process of human self-awareness and self-realization, the ability to get along with others and the world is the privilege of human beings as higher animals, and it is also the ability that other creatures and intelligent simulation in nature are difficult to achieve. Educators should make critical choice in the normal education mode, distinguish the urgent need and alternative work content, think critically about the transfer of education training focus, seize the industrial opportunities brought by intelligent media, find their own development direction, reform the professional training mode of normal education to the general training mode, and realize the cooperation and integration of human and computer. In the future, human beings still have greater potential to be intelligent leaders.

B. Responsibility and action

In the construction of media space, human beings have gone through five kinds of civilization: depiction civilization — language civilization — printing civilization — electronic civilization — digital civilization, and will enter the era of "quantum civilization" in the future. The development history of media has proved that the development of science and technology follows the rationality of technical tools. However, the development of education must follow the value orientation of humanity, and its evolution must cope with the changes of future development, otherwise there will be no complete technical environment to become the basis of education. However, the development logic of education should not be the same as the technological development logic. It must adhere to its cultivation system of humanistic qualities. Only human beings with positive values and world outlook can stand at the forefront of intelligent technology and guide its benign development. Education should be based on technology so as to surpass technology and face the world, which is the responsibility of future education. It is necessary to deconstruct the value-oriented dilemma of "popular majors and hot industries" in current education, and construct an educational form in which generalist education can play a leading role in the future technological environment. It is required to use more wisdom to compose and create civilization, instead of hindering civilization with excessive intellectual dependence. Then, the education and achievements will dominate the development of intelligence in the future.

In order to achieve the goal of education and achievement transformation, educators must make sure that the content of future work should focus on enlightening and stimulating the complementary advantages of human beings. To realize the practical mode of cultivating thinking literacy with self-learning motivation and ability, human beings can clearly understand how to carry out intelligence + learning in the future, how to use their own advantages to catch up with and surpass intelligence, and how to expand the ability of human beings to recognize themselves and enhance their abilities in the process of intelligent development. The transformation of these achievements requires education to play a key role in guiding and constructing the path of human cognitive thinking.

First of all, education should be a scaffold for human beings to climb knowledge rather than a mechanical crane. The rich and diverse forms of artificial intelligence simulation and interaction provide a variety of information receiving channels for learning, innovate some originally boring links in the learning process, and have a positive role in promoting the cultivation of students' integrated general knowledge concept. From the perspective of education stage setting, it is easy to break the established educational output

process. Artificial intelligence satisfies students' curiosity and extensive interest in exploration. This knowledge intake may change students' learning thinking. At this time, education should be based on students' existing knowledge base, respect the achievements of students' autonomous learning, realize the knowledge linkage of flipped classroom, constantly put forward problems beyond students' current cognition under the guidance of education methods of communication, cooperation and enlightenment, and guide students to develop their thinking without losing confidence in the learning process. The current education directly throws out the learning route and planning in the process of content setting, which does not pay enough attention to students' actual knowledge acceptance, lacks personalized understanding level, and unifies students' learning progress. It can be extended to the mechanical crane of knowledge imparting. Uneven personal cognition will make some students who have climbed high be easy to repeat learning; and some students have not yet understood the corresponding degree, so it will only achieve half the result by force. Artificial intelligence technology provides a large number of prior knowledge databases for education, and education also plays a key auxiliary role in human autonomous learning and deep learning in this era. In the future, personalized customized algorithms will provide more generalist education for human beings, and the real purpose of education is to help human beings to obtain further knowledge and deeper learning latitude gradually and orderly on this basis.

Secondly, education should strengthen human's original cognition of knowledge. At present, because of the strong purpose of traditional education, students often can not experience the fun of learning. The improvement of technology makes the form of education develop a new appearance, but it is not enough to stimulate and maintain the students' primary learning impulse. In the future, the urgent need of education is to constantly broaden the horizons, expand the field of knowledge, change the education system with the goal of mastering survival skills to the educational thinking of cultivating the overall situation of human beings, so that students can deeply understand that in today's society, only a better understanding of intelligence can promote the cultivation of all-round talents, and the concept of continuous learning can be embedded into the human gene and move towards an infinite and broad future.

V. CONCLUSION

No matter what kind of social and industrial structure changes realized by artificial intelligence, the essence of education has not changed. It has always been an intelligent industry that cultivates talents for social development and civilization progress and improves the overall quality of the people. The

education turn in the age of intelligence has come with waves. Educators should seize the opportunity, meet the challenges, take the syncretic thinking as the innovation orientation, adapt to the industrial reform with an open and enterprising attitude, and complete their own promotion and transformation in the reform wave. Educators should never forget the original intention and responsibility, guard the value of people with the power of education, and then use the value of human beings to guide the power of intelligence, and strive to meet the new future of intelligence + education in practice.

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