THE TRANSFORMATION OF TEACHER'S ROLE IN THE CONTEXT OF ARTIFICIAL INTELLIGENCE

Yongqi ChenYanzhi He∗
Department of Mathematics, College of Science, Yanbian University, Yanji 133002, **CHINA**

ABSTRACT

Due to the economic and social development and the progress of science and technology, the identity and functional value of the original teachers are gradually weakened, and the identity of the teachers in the new education field also needs to be changed accordingly. Through the Chinese teacher identity of traditional culture characteristics "knowledge to reassure" analysis, from the perspective of the historical classics, illustrate the mechanical than in the emotional orientation, will behavior and three levels of life goal, points out that the period of artificial intelligence teachers should remain stable in the basic conditions to seek transformation, and actively respond to the artificial intelligence computer new challenges to Chinese teachers identity, to reflect the Chinese teachers professional life value.

Key words: Artificial intelligence; teacher; Role change.

INTRODUCTION

Since the emergence of artificial intelligence, various fields and industries have actively sought to establish cooperation with artificial intelligence to promote their further development, and the same is true in the field of education. In recent years, with the continuous breakthrough development of artificial intelligence technology, coupled with the national attention and support from the strategic level, artificial intelligence education has been one of the main fields of artificial intelligence application, and the development momentum is increasingly strong. In January 2017, The State Council proposed in the 13th Five-Year Plan for the Development of National Education to " explore new models of the Internet, big data, artificial intelligence and virtual reality technologies."In 2021, Chen Baosheng mentioned in his speech at the National Education Work Conference to" thoroughly implement the education informatization 2.0 action plan, improve the national public service system of digital education resources, popularize the construction and application of digital campus, and expand the coverage of quality education resources. Use information technology to update the educational concept and change the educational mode."It can be said that the combination of" artificial intelligence + education " is not only the trend of the future education development, but also the key to the development of the future education. Artificial intelligence is a comprehensive science and technology containing multiple disciplines. Its main body is computer science, which also involves psychology, neurophysiology, philosophy, information theory and other disciplines. The development of artificial intelligence has brought new technical support to the field of education, promoted the education field into the "wisdom" era, and once again changed the social demand for talents, requiring more intelligent and innovative talents. Therefore, the purpose of education has changed, and the role of a teacher can no longer meet the needs of current education. In April 2018, the Ministry of Education issued the Action Plan for Education Informatization 2.0, which proposed to " launch the action of artificial

intelligence + teacher team construction to promote teachers to update their ideas, reshape their roles, improve their quality and enhance their abilities."[1]In 2019, China's Education Modernization 2035 issued by The State Council in 2019 requires the implementation of artificial intelligence to build a team of high-quality, professional and innovative teachers and train qualified teachers who can adapt to future education in the information age and artificial intelligence environment. No matter what stage they are at and what form of education and teaching, teachers are the most important factor to achieve the desired ideal results, so the role of teachers has always been a topic of concern in educational research. The rise of artificial intelligence technology in the field of education has brought many new changes to the educational environment and promoted many changes in the development of teachers. Its role positioning and transformation have naturally become the key problems to be solved in the development of artificial intelligence education.
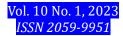
TRADITIONAL TEACHER ROL

The role of the preacher, teachers shoulder the responsibility of transmitting the traditional virtues of Chinese society and the outlook on life, "the way exists, the teacher exists". Similarly, teachers also have the responsibility of guiding and teaching children's "way of life", "the way of the profession" and "the way of study".

The role of abuse, the teacher is usually to the community personnel of culture, he mastered the people through years of practical labor experience and master the method of learning, skills, on the basis of the carefully summarized, and then use certain methods to teach students, and help them to solve the problems in the actual teaching, so as to inspire its intelligence, formed the corresponding knowledge structure and skills, become the community needs management talents. The role of the model, " learn high teacher, the body is for the fan. The behavior of teachers is a role model for students and role models. Because each student has the characteristics of teacher-oriented, the teacher's behavior, as well as the behavior of the students often have a profound and far-reaching influence.

The role of the manager, the teacher is the main organizer and manager of the quality education practice activities in our school, must shoulder the main work of the teaching management of the curriculum activities in our school, and implement the comprehensive management of, check and evaluate the school education and teaching activities.

Friends, to some extent, they always hope to regard teachers as their teachers, but also hope that teachers can treat students as themselves, expect to receive the help of teachers in their studies, family, career and other aspects, and hope that teachers can share the pain and sadness, joy and happiness with students.

The role of a researcher is to teach the work object of dynamic and diverse human individuals, and the teaching content is to teach the continuously developing and changing human society and science and technology. This determines that teachers should face their own actual work objects and content with a mentality of change and development, and constantly learn, reflect and innovate.
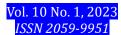
THE URGENT MEED TO CHANGE THE ROLR OF TEACHERS

The teaching goal of the new curriculum provides our teachers with the fundamental connotation and specific development goal of the all-round quality education under the modern education. The educational goal is to cultivate students 'understanding as the main center, to learn to read, promote students' all-round development and lifelong study as the main purpose. In such a historical background, the teachers' understanding of new curriculum and participation is the most important to implement new curriculum, and as a teacher we actively into the new classroom change at the same time, should also be timely to teaching ideas, teaching process, and review their education role, to meet the needs of the new curriculum teaching goal and responsibility. In the mathematics curriculum under the new curriculum reform, the teacher's educational role should be a kind of participant, leader, partner, and those rigid dogmatic cramming courses do not meet the needs of the new curriculum standard reform. Teachers is each student's guidance teacher, should guide students to play their own special personality, and guide students to participate in classroom teaching practice, let each student real as class leader, cultivate the growth of their personality and positive outlook on life, the establishment of cultivating their creativity, sense of responsibility, collaboration ability, innovation consciousness, seeking truth from facts and innovative spirit, give them to reflection, exploration and the content of hand operation. Make it possible for each student to understand, understand, study their own interested in mathematical topics. It meets the mathematical needs of every student to the greatest extent, and also opens up the intellectual potential of each student to the greatest extent. As the organizer, the teacher should pay attention to organize students to explore, explore, obtain and use course information, organize students to create and maintain the classroom and positive mood in the teaching process of the psychological atmosphere, as a guiding teacher should pay attention to create appropriate course activities, guide students to activate the previous experience needed, guide students to classroom data value.

HOW THE ROLE OF TEACHERS SHOULD BE CHANGED UNDER THE BACKGROUND OF ARTIFICAL INTELIGENCE

The constant source of teachers' role in the era of artificial intelligence

Artificial intelligence, enabling teachers, has become the main trend of future education and teaching[2]. The rapid and rapid development of teaching technology has led to the gradual weakening of the important role of traditional teachers. Therefore, it is pointed out that "preaching, teaching and solving doubts" is no longer the image of teachers in the Internet era[3]The role of teachers needs to be rebuilt and given a new position[4]; Or changes need to be made, such as transformation as "preaching, teaching, and questioning"[5]; Either the connotation of preaching, teaching and clarifying doubts should go hand in hand with The Times. For example, preaching should teach ideas, teaching should train the mind, and solving doubts should increase the endowment[6]. However, with the vigorous development of artificial intelligence technology today, machinery has long been booming to one point that it can not only teach scientific knowledge, but also cultivate human values in the teaching process of teaching scientific knowledge[7]Therefore, the education and teaching responsibilities of many teachers will probably be assumed by the new generation of artificial intelligence machinery in the future. It is optimistic to be too pessimistic to claim that human teachers will be completely replaced by a new generation of artificial intelligence machinery, and to believe that human teachers will never be replaced by artificial intelligence. In the era of artificial intelligence, teachers must give full play to their special advantages over teaching machinery: morality, emotion, philosophy, aesthetics, critical thinking and innovative

ideas and so on[8]In particular, the advantages of interpersonal interaction compared with the intelligent platform is not only the constant source of its educational role function, but also the essence of its educational function.

The transformation of teachers' roles in the era of artificial intelligence
Change the "leader" to the "leader". quality education, from the role of "leader" to "promoter", which also shows that the interaction between teachers in teaching, the head teacher bears the responsibility of guiding children's all-round growth. Teachers are the guides of knowledge, and shoulder the important responsibility of guiding students to master the basic knowledge, the sound development of students' bodies and the development of the moral quality of knowledge. It is also from "preaching" to "exploring", with "preaching" as the pursuit of leading students to devote to the real practice innovation in "preaching" to explore the construction of "preaching" system ". There is Taoism before tradition; inheritance is inheritance. In The Original Road, Han Yu once asked "the way of the first king of the Ming Dynasty". Therefore, Chen Yinque commented that Han Yu wanted to "to establish the proof of the Tao, and passed it to it"[9]. Li's son Pan "the six arts are all learned", but he did not feel that "humble position is ashamed, official is close flattery", but also "not in time, learn", so Han Yu "jia Qi ancient road", and was willing to form a traditional interpersonal relationship with him. By writing Shi Shuo, Han Yu also tried to explore how Li Pan created Daotong so that he could contribute to reality and seek further development. Even in the period of artificial intelligence, he still became a model of Chinese teachers actively accepting students to build a unified way. From the "preaching" to explore the practice "preaching". Han Yu "said", through rate first governs incorruptibly, positive responsibility, and justice to their own "will", "my teacher also" to the method to show to see, this is the "on" said "take its words to clear its way", the public itself will go, bearing, to "gu", "learn to its way".

In the information age of artificial intelligence, although all kinds of knowledge can be Shared in the network, but knowledge does not represent the civilization itself, to cultivate students "will", must the teacher dare to assume the responsibility of cultural communication, dare to use technology, and students to discuss how to form based on the same moral community, and common inheritance and carry forward the past holy study, teach students in the way to seek the truth of exploration and innovation. Explore education "morality" in the "preaching". Moral, there is the spirit of dedication to the truth. As the saying goes, "different ways do not seek for each other" ("The Analects of Confucius"), if teachers want to be able to preach, they should study and cultivate morality. Why did Han Yu criticize the world as "saints, fools, fools"? Because this man "sits in the well and sees the sky" ("The Original Tao"), it is precisely because the people knew very little about the "Tao" at that time. In the Analects of Confucius, it is said that "a gentleman learns the way, while a young man learns the Tao is easy to make."Han Yu firmly believed that "Tao" can be cultivated, so he was not afraid to laugh at the time, not afraid to "laugh in groups", and boldly accepted students. As Wang said, his move is not only an important part of the revival of Confucianism, but also an ability to educate.[10]In the era of big data information, big data analysis is used to match teachers and apprentices, who "educate dao" in the form of collecting students, jointly inherit and carry forward the classic culture, and take the initiative to bear the burden of "xingdao", which is also the due meaning of teachers in the age of big data information. When human society enters the age of big data information, the traditional role of human teachers will be gradually weakened, and the role of teachers will also be challenged. However, the intelligent system can not completely replace human teachers. Teachers should give full play to

their advantages over intelligent machines in interpersonal communication, and influence human students with emotion, willingness and pursuit of goals, which is also the constant value of the role of teachers. No matter where the development of science and technology is, it is all teachers but not robots who organize the community of "xing dao", all teachers but not mechanical energy to help students find confusion, establish and explore, as a model of study and imitation. When the teacher to "confused" as the fulcrum, constitutes the children questioned learning field, namely on the basis of "industry" to help learners develop personal future goals, to "tao" the pursuit of truth to explore the students' innovation, in the teachers and students to build future-oriented learning community period, the identity of the teacher is in the process of adhere to its inherent value, quietly to change. Only by actively adapting to this change and finding the development space and opportunities from the unchange of the core elements of education can teachers actively adapt to the great challenges of machines to their roles in the period of artificial intelligence, so as to reflect the value of teachers' professional spirit.

Change from manager to organizer.In the process of children's active participation in the classroom, the leading role of the classroom should be evaluated from the full play of the students' main role. Without the initiative and initiative of students, the dominant position of teachers becomes a "one-man show", and there is no meaning. The teacher's "guidance" should be scientific, enlightening and artistic to fully stimulate the students' thinking activities. Guide students into the formation process of modern mathematical theory and the discovery process of new methods, Due to the formation of basic theories in modern mathematics, the discovery of formula theorems and the application of new methods, All runs through the spirit of The Times to explore and innovate, It contains a profound ideological course, Enriched the "spark" of people's innovative ideas, Therefore, teachers should encourage and guide students to come out from the process of personally participating in such innovative activities, To achieve the development of intelligence and talent, Cultivate people's quality of innovative ideas, Thus enhancing the purpose of human creativity, So teachers should follow the curriculum, Develop curriculum content that to student activities, Increase their range of motion, To cultivate their ability to move around.

In to give them to explore the problem of participation at the same time, the government should also pay attention to the education of students autonomy teachers should inspire them to a mathematical phenomenon from all-round, multi-angle association, reflection, explore, which enhances the horizontal connection between disciplines, also cultivate their thinking ability and the enthusiasm of learning mathematics, also helps to cultivate the students' social participation ability. But we must also realize that the teaching process is not always like a mirror reflects the "preset trajectory", in the process of this dynamic activity, many uncertainty elements, has a distinct uncertainty growth of "self-organization" characteristics, agree with the reality, should be in the "interactive" "open", "independence" characteristics to do some articles. Third, from "teaching" to "career", "industry" as the fundamental guide students to plan their future aspirations. The foundation of "teaching" begins with the example when teachers "establish". Yang Xiong said in "Law, Learning and Practice" that "the teacher, the model of people also."Teacher does not necessarily have to be universal, but must have good moral character and professional skills, reveal its personal spirit, in their own "career" to take the lead, to guide students to model, always "misfortune" ("the analects of Confucius"), voluntarily to teacher taught "industry", and found in the process of the correct direction of learning, so as to cultivate the habit of learning. So the teachers need to often reflect on their own " pass, not bad?"(《 Learning from The Analects of

Confucius). This is true of traditional teaching, and so is teaching in the era of artificial intelligence. The function of "teaching" comes from the lifelong study in the process of "teaching". The reason why Han Yu criticized them for only "teaching" as teaching "books" and "reading" skills is because they finished, but they did not improve. Hu promised that "although the ancient people taught people, they half experienced the mind, and all benefited from it."[11]. The main work of teachers should be to guide and help them to immerse themselves in the educational environment, and use the constantly updated educational resources of the education network to study hard and make progress together, so that we can achieve the "teaching and learning" mentioned in "Learning Records" in artificial intelligence, and achieve the "professional growth of teachers" advocated by today's society. The feasibility of "teaching" is the value identification in the process of "teaching". Study is not a moment of a moment, but from the behavior of learning. As long as a clear goal, can "career", can attract peers, will get the recognition of their hearts. It is what "virtue is not solitary, there must be neighbors" (The Analects of Confucius), we can always look for "fellow people" in the process of perseverance, explore the comparative advantages of each other, and acquire moral character, knowledge, professional skills and other parts that are beneficial to self-development. When the teacher comprehensively shows the advantages of their own career in the primary and middle school students, stimulate the study and imitation, "teaching" is infiltrated in the teacher's daily words and deeds, and as the cornerstone of primary and middle school students in the future career and innovation.

CONCLUSION

Today is a learning society, and the era of knowledge explosion has come. Those who participate in continuing education or vocational training will not be able to meet the development needs of future education. The lifelong learning ability and awareness of teachers cultivated in the ARTIFICIAL intelligence environment can not only become the status of social civilization promoter and learning support service provider in the future, but also help to educate students to master the lifelong learning ability in the information environment. In order to become a new generation of teachers, teachers must follow the development of the society to change the teaching concept in time, train and develop their own subject skills, enrich the teaching content, acquire innovative methods and improve the teaching and research ability. It can be seen that the most important way for teachers' comprehensive and sustainable professional growth is to cultivate their lifelong learning ability, so as to effectively produce strong professional ability and meet the professional needs of sustainable growth. In the context of artificial intelligence of the Internet, teachers practice the idea of lifelong learning, and thus become the active learners of intelligent education. In view of the needs of students' diversified cognition and independent learning, teachers should constantly update their educational ideas, innovate their teaching methods, promote their role transformation, and accelerate the development of new teaching methods that adapt to the era of intelligent education. As the basic element of intelligent teaching, teachers use artificial intelligence information technology to integrate and apply core educational knowledge in a modern teaching environment, deeply integrate information technology, course content knowledge and teaching method knowledge, and transform them into applications. Build an intelligent online teaching environment for students to provide teaching support knowledge guidance, humanized, all-round learning consultation and services, so that learners to achieve more efficient knowledge accumulation and transformation. With the arrival of 5G period, with the Internet of things, a new generation of artificial intelligence, virtual reality, mobile Internet

technology of new technology and teaching services deep integration development, not only completely changed the Chinese traditional education teaching service mode, also promote the school teaching concept and teaching mode of comprehensive transformation optimization. For the first time, the construction of intelligent teaching ecological environment in SPOC integrated learning, providing theoretical and technical support for the role transformation and practice of education; then, teachers reflect in online and offline teaching, and become sensitive thinkers of the wind direction of thought and social issues. Finally, teachers change in teaching, based on the learning community, implement the lifelong learning model, and become the active researchers in modern society.

Remark: *Corresponding author: Yanzhi He E-mail: yzhe@ybu.edu.cn.

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人工智能背景下教师角色的转变

陈永奇 何延治*

（延边大学理学院 吉林 延吉 133002 中国 ）

摘要:由于经济社会发展与科技进步,原有教师的身份及职能价值逐渐被弱化,在全新的教育场域中教师的身份也需随之改变。透过对中国教师身份传统文化特点"传道授业解惑"的剖析,从解释历史典籍入手,阐明人相较于机械在情感取向、意愿行为和人生目标三种层面的优势,指出人工智能时期的老师身份应在基础条件保持稳定的时候去谋求转型,并积极回应人工智能时期计算机对中国教师身份的新挑战,以体现中国教师职业的人生价值。

关键词:人工智能；教师；角色转变

一、问题的提出

教师角色的发展是人工智能背景下关注的重点教育话题自人工智能出现后，各个领域和行业都积极寻求与人工智能建立合作，以推动自己进一步发展，教育领域也同样如此。近几年随着人工智能技术不断取得突破性发展，再加上国家从战略层面的重视与支持，人工智能教育已经是人工智能应用的主要领域之一，并且发展势头日益强劲。2017 年 1 月，国务院在《国家教育事业发展"十三五"规划》中提出"综合利用互联网、大数据、人工智能、虚拟现实技术探索未来教育教学新模式。" 2021年，陈宝生在全国教育工作会议上的讲话提到要"深入实施教育信息化 2.0 行动计划，完善国家数字教育资源公共服务体系，普及数字校园建设与应用，扩大优质教育资源覆盖面。利用信息技术更新教育理念，变革教育模式。" 可以说"人工智能+教育"的结合既是未来教育发展的趋势，也是未来教育发展的关键。人工智能是一门包含多个学科的综合性科学技术，其主体是计算机科学，同时也涉及了心理学、神经生理学、哲学以及信息论等学科内容。人工智能的发展给教育领域带来了新的技术支持，推动教育领域进入"智慧"时代，也再次改变了社会对人才的需求，更加需要富有智慧的创新型人才。因此教育目的随之发生改变，曾经的教师角色已经不能满足现下教育的需要。2018 年 4 月，教育部发布《教育信息化 2.0 行动计划》，提出"启动人工智能+教师队伍建设行动，推动教师更新观念、重塑角色、提升素养、增强能力。" [1]2019年国务院印发的《中国教育现代化 2035》要求，实施人工智能建设高素质专业化创新型教师队伍，培养能适应信息化时代教育、人工智能环境等未来教育的合格教师。 无论处于哪个阶段、属于何种形式的教育教学，教师都是取得预期理想成效的最为重要的因素，所以一直以来教师角色都是教育研究的关注话题。人工智能技术在教育领域兴起，给教育环境带来了许多新的变革，促使教师的发展发生了许多变化，其角色定位与转变自然就成为了人工智能教育发展所要解决的重点问题。

二、传统的教师角色

传道者的角色，教师们肩负着传递中国社会传统美德,人生观的职责,"道之所存,师之所存也"。同样,老师对孩子的"做人之道""为业之道""治学之道"等亦有指导和言传身教的职责。

授业解惑者的角色，老师通常是对社区内各行各业人员的培养养者,他在掌握了人们通过多年的实际劳动经验而掌握的学习方法,技巧的基础上,对其精心地进行了归纳,然后再用一定的方法传授给学生,并协助其解决实际教学中的问题,从而启迪其智力,养成了相应的知识结构和技能技巧,成为了社区所需要的管理人才。

示范者的角色，"学高为师,身正为范。"教师的行为是学员和楷模的楷模。由于每个学员有向师性的特征,教师的行为举动,以及行为处世的心态往往对学员有着耳濡目

染,潜移默化的深远影响。

管理者的角色，老师是我校素质教育实践活动的主要组织者和管理人员,必须担负起我校课程活动教学管理工作的主要工作,并对学校教育教学活动实施全面管理工作,检查评估。

朋友的身份，在某种程度上,他们总是希望把老师看成他们的老师,也希望老师能把学生当成自己对待,期望受到老师在学业,家庭,事业等多方面的帮助,期待老师能和学生共同分享痛苦和忧伤,共享欢乐和幸福。

研究者的角色，教授工作对象是具有活力的,千差万比的生活的人类个体,传授的教学内容则是持续发展变动着的人类社会与科学技术。这就决定了,老师要以一个变化发展的心态来面对自身的实际工作对象,内容,并不断地进行学习,反思与创新。

三 、教师角色的转变的迫切需要

新课程教学目标,给我们老师提供了在现代教育下全方位素质教育的根本性内涵和具体化发展目标.教育目标以培养学生的了解为主要中心,以学会读书,促进学生的全面发展和终身学业为主要目的.在这样的历史背景下,老师们对新课标的认识和参与是推行新课标的最重要,而身为老师的我们在积极主动地投入这场新课堂变革的同时,也应该适时地对教学观点、授课流程等作出深刻反省,并重新检视自己的教育角色,以满足新课程教学目标的需要与责任.在新课改下的数学课程中,老师的教育角色应当是一种参加者、引领、合作人而那些死板教条的填鸭式课程,已不符合新课标变革的需要.老师们是每个学员的指导老师,应当引导学生发挥自身的特殊个性,并指引学生自己参与课堂教学实践活动,让每个学员真实作为班级的领导者，培养健全他们个性的成长和积极人生观的建立培育他们创造力、责任心、协作能力、创新意识、实事求是心态和创新精神,给他们进行反思、探索和具体行动手操作的内容.使每位学生都有可能了解、认识、钻研自己所感兴趣的数学课题.最大程度地满足每一位学生的数学需求,也最大程度地开启了每一位学生的智力潜力.作为活动组织者,老师要注重于组织学生发掘、探索、获取和使用课程资料,组织学生创造并维护课堂中和教学过程中积极向上的情绪心理氛围，身为指导老师要注重于创设适宜的课程活动,指导学生激活进行探索所需要的先前经验,指导学生进行课堂资料价值的超水平运用。

四、人工智能背景下教师角色应如何改变

1.人工智能时代教师角色的不变之源

人工智慧赋能于老师,已变成未来教育教学的主要趋向[2]。教学科技日新月异地飞跃式快速蓬勃发展,致使传统教师的重要角色渐次削弱,因此人们指出,"传道、授业、解惑"要么已不再是网络时代的老师形象[3]，老师角色需要再造,被冠以崭新的位置[4];要么需有所改变,比如转型作为"传道、授方、启疑"[5];要么传道、授业和解惑的内涵都要与时并进,比如传道要讲授思想、传业要训练心灵、解惑要增加禀赋[6]。但在人工智能技术蓬勃发展的今天,机械早已蓬勃发展到既能教科学知识,又能在教科学知识的教学过程中培育人的价值理念[7],因此很多老师所担负的教育教学职责在很大概率上都会由未来的新一代人工智能机械所担当。而独断专行地宣称人类老师将被新一代人工智能机械完全替代将会过于悲观,而独断专行地相信人类老师将永远没有机会被人工智能取代,也是一种盲目乐观。在人工智能时代下的老师,必须充分发挥自身相对于教学机械的特殊优点:道德、情感、哲学、审美、批判思考和创新思想等等[8] ，特别是在人际互动中相较于智能平台的优势,这既是其教育角色功能的不变之源,也是其育人功能的本质所在。

2.人工智能时代教师角色的转变

变"主导者"为"引导者"。在素质教育中,从老师的"领导者"角色转化为"推动者",这也表明了在教学中老师双方交往互动,班主任担负着指导孩子全面成长的职责。老师是

知识的引导者,担负着指导学生基础知识的掌握,学生身体的健全发育和知识的德品质的发展的重要责任。也正是从"传道"转为"探道",以"道"为追求引领学员献身真实的实践创新在"传道"中探寻建构"道统"。先有道统,才有传统;有继承,就可以行道了。在《原道》中,韩愈曾自陈他要"明先王之道以道之",故而陈寅恪评论说韩愈欲"创立道统证明,相传其渊"[9]。李氏子蟠"六艺经传皆通习之",却不会觉得"位卑则足羞,官盛则近谀",也是"不拘于时,学于余",所以韩愈"嘉其能行古道",并愿与他形成一道传统人际关系。而透过写《师说》,韩愈也在身上力行地尝试探讨了李蟠怎样创立道统,使他奉献于真实并寻求进一步发展。即使到了人工智能时期,他仍成为中国教师积极收徒以建道统的典范。从"传道"中探求笃行"道志"。韩愈的《师说》,通过率身先垂范,积极担责,并公正地把自身的"志于道""吾师道也"以述文的方法展现给众人看,这正是其在《谏臣论》中说的"修其辞以明其道",公示自身将行道志、承道统,欲与李蟠一同"行古道","学以致其道"。

在人工智能信息时代,尽管各种知识都能够在网络共享,但知识并不能代表文明本身,要培养学生"志于道",就必须老师敢于承担文化传播之责,敢于利用技术手段,和学生探讨怎样形成基于同一道德统的共同体,并共同传承与发扬以往圣绝学,教导学生在寻求真相的道路中探求与创新。在"传道"中探求教育"道义"。有道德,就有献身真相的精神。正所谓"道不同不相为谋"(《论语卫灵公》),老师要能传道,就应该研究培养道义。为何韩愈批判世人"圣益圣,愚益愚"?因为这个人"坐井而观天"(《原道》),也正是由于当时众人对"道"了解甚少。《论语阳货》里说"君子学道则爱人,小人学道则易使也"。韩愈坚信"道"是可以培养的,因而不惧时讥,不怕"群聚而笑道",大胆收徒。正如汪瀷所言,他的举动不仅仅是兴儒学的一项重要内容,更是一种教育再生能力。[10]在大数据信息时代,利用大数据分析搭配师徒,他们以收徒的形式来"育道",共同传承和发扬经典文化,主动承担起"兴道"的重担,此也是大数据信息时代老师的应有之义。当人类社会步入大数据信息时代,人类传统老师角色将逐步削弱,老师的角色地位也必将受到挑战。但智能系统并不可以完全取代人类老师,教职工们应充分发挥自己在人际交流中相对智能机器的优势,用情感、意愿和追求目标来影响人类学员,这也是老师角色始终不变的价值所在。因为不管科学技术发展在哪里,都是老师而是非机器人组织了"兴道"的共同体,都是老师而是非机械能帮助学生寻惑、立业和探道,作为求学和效仿的楷模。当老师以"惑"为支点,构成了孩子质疑问难的学习场域,即以"业"为基础协助学习者制定个人的未来目标,以"道"的追求引领学生献身于真理的探究创新,在师生共同构筑起面向未来的学习共同体时期,老师的身份也就在坚持其固有价值的过程中,悄悄地进行着变化。教师们唯有积极适应这一变化,从教育核心要素的不变化中找到变的发展空间与机会,才能积极适应人工智能时期机器对自身角色的巨大挑战,从而体现教师职业精神的价值。

变管理者为组织者。提升数学课堂中的参与水平在孩子积极参与课堂过程中,课堂主导作用的发挥要从学生主体作用的发挥能否充分来评价老师.脱离了对学生主动性积极的投入,老师的主导地位就变成了"独角戏",也就没有什么意义可言了.老师的"导"应具备科学化、启发性和艺术化,充分激发学生的思维活动.引导学生进入现代数学理论的形成过程与新方法的发现历程,由于现代数学中的基本理论的形成、公式定理的发现和新方法的运用,无不贯穿着人们勇于探索、敢于创新的时代精神,蕴藏着深刻的思想历程,丰富了人们创新思想的"火花",因此老师要激励、指导学生从亲身参加这种创新活动的历程中走出来,以达到开发智力和才能,培养人们创新思想的品质,从而提高人类创造力的目的,所以教师应根据课程,制定出有利于学生活动的课程内容,增加他们的活动范围,从而培育他们的活动能力。

在给他们以探讨问题参与权的同时,政府也应重视对学生的教育自主性教师应该激发他们对某个数学现象从全方位、多角度的联想、反思、探究,这既增进了学科之间的

横向联系,也培养了他们思维能力和学习数学的积极性,也有助于培养了学生的社会参与能力.不过我们也必须意识到,教学过程并不总能象镜子那样反映"预设的轨迹",在这种动态活动过程中,不确定性的元素众多,有着鲜明的不确定性增长的"自组织"特征,认同这一现实,就应在"互动性""开放型""独立性"的特征上做些文章.第三,从"授业"转为"立业",以"业"为根本引导学生规划个人的未来志向。

"授业"的根基始于老师"立业"时的带头垂范。杨雄在《法言学行》中说"师者,人之楷模也"。老师并不一定要全知全能,但必需具备优秀的品德和专业技能,彰显其个人精神,在自己的"立业"中努力做到带头垂范,才能引导学员以之为楷模,时时"见贤思齐"(《论语里仁》),自觉自愿地进行老师所教之"业",并在这一过程中发现正确学习的方向,从而培养学习的习惯。于是老师们才需要时常反省自己的"传,不习乎?"(《论语学而》)。传统教学就是如此,在人工智能时代的教学也亦然。"授业"的功能来源于老师"立业"过程中的终身学业。韩愈为什么抨击他们只将"授业"当成教授"书"中学问和"句读"技艺的师者,是因为他们授完即毕,自己却未有提高。胡承诺说"古者虽曰教人,半是体验心灵,而皆获其益"[11]。老师的主要工作,应是指导和帮助他们浸入教育境脉,并利用教育网络不断更新的教育资源和我们一起认真学习、一起进步,就可以在人工智慧中达到《学记》中所言的"教学相长",达到当今社会提倡的"教师专业成长"。"授业"的可行性就是老师"立业"过程中的价值认同。学业绝非一时一刻之物,而是源自于一心向学的行为。只要明确了一个目标,能依之"立业",便可以吸引同行者,将得到其心灵的认可。正是所说的"德不孤,必有邻"(《论语里仁》),我们总能在笃志前进中寻找"同道之人",发掘对方的比较优点,从别人那儿获取品德、学识、专业技能等有益于自我发展的部分。当老师在中小学生身上全面地展示自己立业的优点,激发求学和仿效,"授业"就浸润在老师的每日言行举止之中,并作为了中小学生在未来立业与创新的基石。

五、结语

当今正是学习型社会,知识大爆发时代已经来临,参加继续教育或职业培训者将不可以适应未来教育的发展需要。人工智能环境中培养的教师终生学习能力和意识,不但可以成为今后的社会文明推动者和学习支持服务者的地位进一步自我提高,而且还有助于教育学生掌握在信息化环境下的终生学习能力。老师要成为新一代的传道授业释疑解难者,必须紧随社会的发展及时主动改变教学观念,训练和发展自己的学科技能,丰富教学内容,习得创新方法和提高教学研究能力。由此可见,教师全面可持续的专业成长最主要的方式便是培养自身的终生学习能力,从而有效的让其产生强大的职业能力,使其满足持续成长的职业需要。在互联网的人工智能语境下教师实践了终生学习思想,从而成为智能教育的主动学习者。针对学生多样化认知、自主学习的需要,教师要不断更新教育思想,革新教学方式,促进角色转换,加快发展适应教育智能化时代的新教学方式。教师作为智能教学的基础元素,利用人工智能信息技术,在现代化的教学环境中整合运用核心教育知识,将信息技术、课程内容知识、教学方式知识等深度整合,并转化为应用。构建智能在线教学环境,为学生进行教学性支持的知识指导,人性化、全方位的学习咨询与服务,以便使学习者实现更高效的知识积累和转化。伴随5G时期的到来,以物联网、新一代人工智能、虚拟现实、移动互联网技术等为代表的新型技术与教学服务领域深入融合发展,不但彻底改变了中国传统教育的教学服务模式,还推动着学校教学理念和教学模式的全方位转型优化。文章首次研究了SPOC融合学习中的智能教学生态环境的构建情况,为教育的角色转换和实践提供理论保障与技术保障支撑;然后,老师线上和线下的教学中反思,成为思想的风向和社会问题的敏感思考者。最后教师在教学中改变,立足于学习型社区,贯彻终生学习模式,成为现代社会的主动研究者。

备注：*通讯作者：何延治 电子邮箱：yzhe@ybu.edu.cn.

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