

The Theory, Reality and Path of Artificial Intelligence Empowering of Ideological and Political Education

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Abstract: The three aspects of internal logic for empowering ideological and political education with artificial intelligence include the structural adaptation of technological drive and educational need, the reshaping of subject relationship under the human-machine collaboration, and the dialectical unity of value orientation and education ecosystem. In reality, the application of technology has resulted in weakening teacher-student interaction along with subject status, occupation of instrumental rationality leading to the loss of humanistic spirit and deviation from value orientation, full-scale technological application is superficial, resulting in a lack of deep convergence and reduction of efficiency, failure of data security leading to personal information leakage and immature supervision mechanisms. To combat the challenges confronted by these technologies, we must intervene in a timely manner to enhance the human-machine interaction between humans and AI, reconstruct the interaction and emotional experience of subjects; uphold the value rationality of AI, reintegrate the humanistic spirit and correct the value orientation of these technologies; innovate application scenarios and enhance educational effectiveness through deep integration; and improve the regulatory system for data security management and ethical risk resolution. These measures will allow the rational and effective development of AI-empowered ideological and political education.

1. Introduction

As artificial intelligence technology is developing rapidly, it is having a great impact on education. Likewise, ideological and political education is no exception. These days, technologies like intelligent recommendation, affective computing, natural language processing and so on are being more and more integrated into teaching scenarios. As a result, classroom teaching decisions are becoming more and more data driven from experience driven, and pedagogical relationships are becoming more two way rather than single way. □ Technological intervention, however, is not synonymous with educational efficacy. In practice, programmatic recommendation creates information cocoons that undermine the function of value guidance. The interaction between humans and computers replaces, to some extent, the dialogue between teachers and students and weakens the humanistic atmosphere of educational activities. Data collection and mining activities can also violate privacy, posing an ethical risk. The problem of ensuring that artificial intelligence performs its basic functions of enhancing virtue and educating talents rather than succumbing to techno-centrism is one that calls for an answer.

2. The Internal Logic of Artificial Intelligence Empowering Ideological and Political Education

2.1 Relationship between Technological Drivers and Educational Needs. The change from experience-based to data-based decision-making

Traditional ideological and political education relies heavily on educators' individual experiences and limited observations, but it is difficult to accommodate complex differences in students' cognition, emotions and values. As a result, there is homogenization in content supply. However, students' thoughts are implicit and fluid and researchers fail to penetrate their deeper levels with static data collection methods. When education becomes a one-way output in an attempt to satisfy the mismatch of supply and demand, it becomes very difficult to achieve its effectiveness in actual fact. The use of artificial intelligence opens up new methodological tools to overcome these barriers. On the backdrop of the global education reform, the implementation of information technology has been a recent trend in education. Using big data mining, machine learning, and natural language processing, we can educate the mind by systematically collecting and intelligently analyzing those behavioral traces left by students in various scenarios like classroom discussions, social media interactions, library borrowing records, and online learning to transform the ideological dynamics that would otherwise be immeasurable and undetectable into quantifiable and traceable data. The educational decision-making process becomes more objective and foresighted. By constructing the digital twin models of the ideological dynamic of students, the educational system can shift from "post-hoc attribution" to "ex-ante prediction", so as to intervene in the incipient state of ideological confusion. [1]Through algorithms, the problem can be identified through the method of cluster analysis, so that education can transform from "experience-type judgment" to "data-type precision." This basically depends on the power of technology to respond to the structural complexity of educational needs, allowing ideological and political education to shift from "flood irrigation" to "precise drip irrigation." However, data-type preciseness is not equal to algorithmic determinism, and educators' value judgment and professional discretion remain key components of the decision-making loop. □

2.2 Mutual Restructuring between Human-Machine Collaboration and Subject Relationships. The Transition of the Teaching Model from Single Body to Dual Subject Co-governance

Traditional ideological and political education is teacher-centered, which restricts the active construction and critical thinking of students. The involvement of artificial intelligence has created a relationship of "teacher-student-agent." In this model, the function of information processing and recommendation is given to the AI. The teacher takes responsibility for emotional and value guidance so that they can complement each other. The logic of this model innovation carries out a re-explanation of the "subjectivity" issue. The traditional philosophy of subjectivity has always emphasized human autonomy. However, in the intelligent era, subjectivity is not reflected in the rejection of technology, but in the ability to use technology and coexist with it. The teacher is no longer the "transmitter of knowledge", but "designer of learning" and "orchestrator of human-machine collaboration"; the student is no longer the "passive recipient of knowledge, but active inquirer" and "subject of self-education". In the ideological and political classroom assisted by human-machine collaboration, after students complete basic knowledge retrieval through smart Q&A, class time can be liberated for in-depth debates and analysis of values, stimulating the development of higher-order thinking. [2]The beauty of "dual-subject co-governance" is to recognize that both teachers and students have irreplaceable subject status, while AI agents can be treated as engineering quasi-subjects with auxiliary functions. Through mutual co-governance and

dynamic adjustment, educational activities will shift from one-way indoctrination to bilateral co-construction; and from static execution to dynamic generation.

2.3 The educational ecosystem regulates human behaviour with value guidance. Improving efficacy from unidirectional indoctrination to multi-actor collaboration

The influence of artificial intelligence on ideological and political education does not just refer to the influence of technological tools. Rather, it causes the entire ecology of concepts, resources, processes and evaluation to be reshaped. The conventional education system that only recognizes indoctrination is being replaced by an open, interactive and adaptive education ecosystem. The dialectical unity of value guidance and educational ecosystem has become a crucial issue in this transformation. On the one hand, the multi-entity collaborative ecological pattern greatly enhances the coverage, accuracy, and interactivity of ideological and political education, thus resulting in qualitative improvement of its effectiveness. The diversity of the educational ecosystem may create new risks such as disorientation of values, excessing information reception and attention dispersion. When value aims are undefined, stakeholders may drift towards relativism and techno-centrism in collaboration. To thus, the need arises to reinforce the integration of the logic of value guidance into the educational ecosystem construction. In other words, the content ranking of algorithmic recommendations should adhere to mainstream values; the design of virtual interaction scenarios should display positive moral cues; the indicator framework of intelligent evaluation systems should incorporate the ideological growth dimension rather than merely observing behavioral data. The intelligent era ideological and political education ecology should be value–technology-institution three-in-one. Which value rationality delineates the scope of technological use, and institutional norms guarantee the realization of value orientation. [3]Technology is not a neutral tool, it is a specific value carrier and carrier of value dissemination.

3. Realistic Challenges of Artificial Intelligence Empowering Ideological and Political Education

3.1 Subjectivity Confused by Technology The diminishing interaction between teachers and students and decline in the status of the subject.

The application of artificial intelligence to ideological and political education enables functions such as personalized learning, accurate and precise content delivery, etc., but it cannot be avoided that it will give rise to subjectivity dilemmas. The essence of ideological and political education is the transmission of values and emotions between human beings, its core is the two-way interaction and co-construction of meaning by teachers and students. Nevertheless, With the extensive penetration of intermediary intelligent algorithms and virtual technology, the traditional teacher-student relationship is becoming “technology-mediated” or “technology-replaced”, and the subject status of both sides is weakened. The use of smart systems for teaching reduces person-to-person, real-time interactivity between teacher and student. Working on the principle of ‘efficiency maximization’, AI platforms use standardized Q&A and automation for offers to avoid discussion and reflection. The feedback and spiritual care students receive due to non-verbal cues are limited. The feedback teachers receive based on learning analytics reports, on the other hand, is overrated as they lose the grasp of students’ ideological dynamics gradually. When teachers are removed from the instructional decision-making process and replaced by algorithms, the essentiality of the teacher as a unique lively particular loses its worth, and the person-centered appeal of ideological and political education is weakened. Student subjectivity is also alienated due to technological intervention. Students' learning behaviors have been quantified into metrics such as

click-through rates. The ideological growth of students has been compressed into data which is computable model parameters. The data-driven disciplinary structure leads students to passively accept algorithmic pathways, stripping them of their critical faculties and choice-making abilities, and turning them into dependents of technical systems. The existence and agency of humans are obscured, and education becomes a mechanical computer-human loop, which is not the main aim of development of a good human being.

3.2 The Usurpation of Value Rationality by Instrumental Rationality. A deviation in the value orientation is likely to reap from the loss of humanistic spirit.

As artificial intelligence provides aid in the ideological and political education, there emerges an issue of the over-emphasis of instrumental rationality and the under-emphasis of value rationality. When ‘instrumental rationality in the application of technology and value rationality in education’ is not compatible, there is a lack of humanistic spirit.[4] Then there will be deviation in value orientation. To begin with, values of ideological and political education narrow along algorithm-driven approaches. In other words, thought processes are divided into visible variables, while education results are categorised to help precision education utilising big data. But value cultivation is holistic, contextual, and diachronic, making it impossible to fully datify. The over-dependence on quantitative indicators leads to the loss of humanistic factors and treats rich connotations like a technical operation. Furthermore, the extension of instrumental rationality has the potential for value orientation to depart. The intelligent recommendation system is capable of adapting knowledge content on students’ learning preferences for facilitating improvement in learning efficiency. However, there are any risks involved with this in the ideological and political education. Education like this involves leading students to engage, comprehend, and at times counter value positions other than one’s own that foster reflection. However, if a system persistently caters to already established preferences, it can strengthen cognitive biases. Entertainment-oriented, short, and fragmented videos on ideological and political topics readily receive high traffic, while theoretical texts that require deep reflection receive little engagement. This “silencing” phenomenon will weaken the guiding and critical functions of ideological and political education. The expansion of instrumental rationality diminishes the emotional warmth and humanistic care within the educational process. When functions like diagnosis, evaluation, and intervention are taken over by AI, educators are at risk of technological delusion. As a result, interventions are mechanistic that do not take into account the individual and conversing humanely. What students experience instead is surveillance and discipline rather than being understood and respected, while the humanistic ambience of ideological and political education is replaced by technology.

3.3 The Superficiality of Technological Embedding: Lack of Deep Integration and Reduced Educational Efficacy

The technology of artificial intelligence has brought the possibility of changing concepts of teaching and helping with precise resource allocation in ideological and political education. Nonetheless, the existing practices generally suffer from the problem that technological applications remain at the surface level. The integrated use of artificial intelligence and education is already happening in some local pilot projects or are simple overlay tool used in ideological and political education, with little real grounding in the logic, content model and method of ideological and political education, resulting in low educational effectiveness. The integration of technology with education, especially AI in ideological and political education does not laser in as various factors—such as the algorithm’s black box do not allow seamless penetration into education. That is to say, amid a technological “black-boxing” intervention, algorithmic logic is opaque and

under-theorized.□ Further, several colleges have put in a lot of money to build luxurious hardware architectures of institutes such as smart classrooms, virtual simulation experience center, and so on. Nevertheless, most of these facilities are directed towards shallow functions like playing videos and online check-in, hence, it becomes difficult to bring about basic changes in curriculum design, teaching strategies and evaluation models. The in-depth integration is not sufficient to allow those elements promoted by the tech providers namely, personalised learning and precise diagnosis, to change the actual outcome of teaching. The features of educational technology were also misused, showing superficiality. The theory of ideology and political education has the attribute of ideology, which requires systematic and dialectical analysis. In order to gain user engagement, some AI products break down theories into short videos, games, etc. Whereas it makes it easier to participate, it undermines seriousness and depth. Thus, knowledge transmission does not live up to its potential and the internalization of value does not occur.

3.4 Ethical Anomie in Data Security: Privacy Risk Exposure and Lagging Regulatory Frameworks

With the current process of smart development in ideological and political education, data security risks continue to increase, and ethical anomie issues such as privacy leakage, information security threats, and difficult attribution of responsibility are becoming increasingly prominent.[5] The creation of ethical risks is aggravated by the ambiguity of protection responsibilities and the loss of boundaries. The chaotic expansion of data collection is a major source of privacy risks. Certain institutions, for reasons such as doing a good job in precision ideological and political education or comprehensive investigation and research into the ideological situation of students, not only take routine academic data but also include monitoring within the scope of access records, social relations and classroom micro-expressions. The thought process of the students and their emotional ups and downs are the sensitive domains. Any forceful collection violates the basic legal principle of personal information protection and can easily trigger defensive psychology and distrust. The variation between the purpose for which data is used and the identification risk. Data from students must be utilized for internal improvement in education. Unfortunately, due to the absence of effective management mechanisms, it is frequently diverted for merit evaluation, party admission assessment, disciplinary action, and public opinion monitoring purposes. When we use the data to “educate” the learners, they experience the pressure of “being watched” and then generate misleading answers and performative behaviour. This stops the ideological education and political education from oriented the real ideological confusions. Moreover, the lag in regulatory models is a fundamental institutional root cause. Current laws are underutilized to regulate and protect education data even though the Personal Information Protection Law and Data Security Law exist to do this. On the other hand, university AI educational application ethical reviews are predominantly conducted by technical practitioners or administrative departments. There is rarely a cross-disciplinary study by law, ethics, and ideology and politics education experts. Consequently, it is hard to find and avoid possible privacy risks before the system runs.

4. Practical Pathways for Artificial Intelligence Empowering Ideological and Political Education

Artificial intelligence's involvement in ideological and political education has encountered challenges in practice, including the obscuring of subjectivity, the usurpation of values, and superficial embedding as well as ethical anomie. It is imperative to follow the basic principle that technology is for man and practice the new four-in-one practical path of human-machine cooperation, value guidance, deep integration and institutional norms, so as to promote the positive

interaction of artificial intelligence and ideological and political education.

4.1 Strengthening Human-Machine Collaboration: Rebuilding Teacher-Student Subject Interaction and Emotional Connection

This means that to cope with the dissolution of subjectivity and the decline of interaction caused by technological intervention, the key lies in establishing the concept of “human-machine collaboration with human as priority” and changing the subject status of teachers and students. First, we should clarify the supporting role of artificial intelligence, viewing it as a learning tool and an aide for teaching, rather than an educational subject or someone who will decide. Teachers must be in charge of educational guidance, and ideologically educating students, whereas AI is merely responsible for assisting in collecting relevant data, and the analysis of that data, in a coordinated division of labour. Moreover, intelligent technology should heighten, not lessen, the interaction between teachers and students. It is possible to design a “human-machine collaborative dialogic teaching” model through intelligent question-and-answer, helping the teacher to answer frequently asked questions, and liberate the teacher to do in-depth teaching interaction. The system can also help detect the students’ emotions and prompt teachers to provide timely care as a means to strengthen the emotional relationship between teachers and students. A teacher-centered intelligent decision support mechanism has to be set up. AI should only supply reference data, such as learning analytics; teachers must construct and continue to adjust the final intervention strategies so algorithms do not replace their judgment. In addition, It is essential to boost teachers’ intelligent literacy training and improve their abilities to organize instruction, make value judgments and cooperate with machines in an intelligent environment, so that teachers can remain the principal leading force in education in an intelligent age. In the end, students should be encouraged to engage in reverse interaction during teaching, such as providing feedback on their learning experience, and asking questions or making suggestions through smart platforms, thereby forming a co-governed education ecosystem of teachers and students. This way without replacing anything, technology serves as a tool to help. Also, the interaction of the teacher and the student continuously deepens. In essence, we must always safeguard and strengthen human subjectivity to prevent the misuse of technology that can lead to educational alienation.[6]

4.2 Upholding Value Rationality: Integrating Humanistic Spirit and Correcting Value Orientation

In light of the rise of instrumental rationality, and the accompanying loss of humanistic spirit as well as deviation of value orientation, it is important to hold on to the basic principle that value rationality is superior to instrumental rationality, so that artificial intelligence serves the fundamental purpose of ideological and political education of fostering virtue and nurturing talents. [7] On the one hand, it is essential to establish an intelligent algorithm model. The core socialist values and ideological and political education target should be pre-embedded from the design, development and application stages of AI systems to ensure the algorithm complies with values. Specifically, content recommendation algorithms should prioritize educational resources that reflect mainstream values, national identity, and positive energy. Regular auditing of the algorithms will prevent the vulgarization of public discourse that is provoked by radical and entertaining interventions that maximize click-through rates and user dwell time. Conversely, it is necessary to strengthen the humanistic care design of AI applications. It is necessary to build functional modules including emotional interaction, ethical reflection, and value analysis into products such as intelligent teaching platform and virtual counselor so as to guide students’ attention to the demanded human dignity, social responsibility and historical mission, and to avoid technological

tools reducing human being into data nodes. In addition to this, a value warning and intervention mechanism should also be established. When an intelligent system detects abnormal value traits in a student, it should alert and refer the case to teachers for humanistic care and value guidance. In addition, it is necessary to carry out courses on technology ethics and media literacy so that students learn to use artificial intelligence critically, and note the value presuppositions that algorithms make, resist harmful information and develop a rational and prudent attitude toward technology. By following the prescription of “human-centered”, we can make sure that the application of AI in ideological and political education is always people-centered, people-oriented and uplifting people not undermining the value foundation of education in the name of efficiency .[7]

4.3 Promoting Deep Integration: Innovating Application Scenarios and Enhancing Educational Efficacy

In order to solve the problem of “technological embedding is too shallow”, “deep integration is insufficient” and “educational efficiency is low”, it is necessary to promote the deep integration of AI and ideological and political education from “physical superposition” to “chemical reaction” to achieve more full-process all-element all-round integrated development .[8]We must first focus on developing intelligent tools that comply with the laws of teaching that are firmly situated in real-life daily situations. For instance, an “intelligent learning analytics system” can be created by making use of natural language processing technologies and behaviour-tracking technologies to capture students ideological changes, cognitive habits, receptivity characteristics, etc. which can assist teachers in designing a targeted teaching plan. Alternatively, we can have an “intelligent scenario simulation platform” that can simulate historical events, create moral dilemma scenarios, and organize discussions on hot social issues. It enables students to think for themselves and engage in value analysis through actual experiences that internalize values. A resource generation system for ideological and political education that boasts intelligence capability can also be established. This system can automatically generate rich teaching materials including case studies, stories and test questions based on curriculum requirements. This will release teachers from tedious repetitive work. Additionally, there should be setup of data analytics based precision education process. Intelligent platforms enable the realization of the whole cycle of “collecting information – diagnosing learning conditions – recommending plans – conducting teaching – evaluating effectiveness – optimizing strategies.” Thus, classroom arrangements become based on evidence, while teaching strategies continue to improve through feedback. Technology should simultaneously break down barriers between in-class and out-of-class activities, online and offline settings, as well as theory and practice, so that the integration of ideological and political education can be achieved seamlessly. Moreover, we must reform our evaluation methods. AI can be used to gradually move from single score assessment to multidimensional process assessment. Also, AI can be used to record the ideological growth trajectory of the students and establish dynamic character portfolios through which the progress can be made traceable. Ultimately, collaboration between different disciplines should be encouraged so that technology development will always adhere to educational principles and the essence of students. Hence, the expected goal of “improving quality and efficiency” can be truly achieved in ideological and political education empowered by AI.[8]

4.4 Establishing a Sound Regulatory System: Ensuring Data Security and Mitigating Ethical Risks

In reference to data security and privacy risk exposure and backend regulations lagging ethical anomie problems, we need to speed up the construction of a systematic, scientifically standardized, and operationally effective ethical and data governance system. First, it is essential to issue ethical

guidelines and data management regulations on AI-empowered ideological and political education, additional clarifying the rules on data collection, storage, and use, and preventing illegal collection and misuse of sensitive students' data. Universities should create a data ethics committee to carry out regular monitoring and ethical review. Another area that must be promoted is privacy design in technology. Analysing student data can be conducted through data minimization, differential privacy and federated learning which have low or no access to raw individual data, while allowing students the right to access, correct and delete their data. One must establish a clear algorithmic accountability system that is easily explainable. The complaint and accountability mechanisms, the rapid error correction mechanism and regular bias and transparency checks of important algorithms for assessment, prediction and recommendation must be ensured. Finally, educational institutes must conduct the awareness and training of teachers and students/data security use cases at intervals. To encourage the development of a multi-stakeholder governance framework involving the government, schools, enterprises, and the public, it is necessary to promote industry self-discipline and cross-institutional cooperation and build an alliance for ethical use of AI in education. The deployment of a proper regulatory structure would help usher in a sort of safety belt for technological applications That would ensure their safe, compliant, and responsible functioning .[9]

5. Conclusion

The era of smart technology iteration and the change of ideological and political education provides a historical opportunity for the construction of artificial intelligence-enabled ideological and political education, but its development is still in the stage of continuous in-depth exploration. To foster virtue and nurture talents is a fundamental task of education. Future research and practice need to deeply study the inherent tension between instrumental rationality and value rationality, and promote the construction of a human-machine collaborative education mechanism on the basis of the essence of education, so as to solve the practical problems of lack of humanistic concern, superficial integration, and data ethics deficiencies. Simultaneously, one must take man's subjectivity into full consideration, duly exploring the educational possibilities of intelligent technology; and they should gradually shift the technological empowerment from merely being a tool application towards conceptual symbiosis. Furthermore, they also need to promote the long-term integration of technology-enabled empowerment and value cultivation. Moreover, it is necessary to continuously promote the high-quality modernization of the ideological and political education in the new era.

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