

Deconstructing and Overcoming the Dilemma of “Universal Access to Education” in Basic Education During the Digital Intelligence Era from a Humanistic Perspective

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Abstract: “Education for All” represents an advanced form of educational equity in the digital age, centered on addressing individual student differences through precise, personalized educational services. This approach ensures every student receives high-quality education tailored to their developmental needs, embodying the deepening practice of humanistic educational theory within a digital context. However, the realization of “education for all” currently faces multiple practical obstacles: the alienation of technology application, misaligned institutional safeguards, lagging teacher roles, and the absence of ethical constraints. Its core contradiction lies in the tension between the humanistic essence of education and the rationality of technology coupled with utilitarian orientation. Therefore, grounded in humanistic educational theory, this study deconstructs these obstacles at their core. It constructs a four-dimensional practical pathway: aligning technology with educational needs, institutionally safeguarding individual development, restoring teachers to their educational essence, and ethically protecting student rights. This aims to provide theoretical support and practical guidance for breaking the “homogeneous supply” dilemma in basic education during the digital-intelligent era and ensuring “every student can enjoy suitable education.”

Keywords: Digital Intelligence Era; Basic Education; Educational Equity; Artificial Intelligence

1. Introduction

In recent years, the rapid advancement of digital and intelligent technologies such as artificial intelligence and big data has profoundly reshaped the ecosystem of basic education, accelerating its transition from the traditional

“standardized mass production” model to a new paradigm of “personalized precision education” [1]. As the cornerstone of the education system, basic education is a critical link in upholding social fairness and justice. Its digital transformation is not only an intrinsic requirement for high-quality educational development but also aligns closely with the principle of tailored instruction advocated for educational equity. Against this backdrop, digital and intelligent technologies enable the inherent value of universal educational opportunity—embodied in the traditional concept of “education for all”—to undergo an intrinsic upgrade. Technology-enabled solutions not only effectively dismantle barriers to quality educational resources caused by geographical location, socioeconomic background, or individual aptitudes, but also prioritize learners' unique differences and developmental needs. This approach drives precision in educational service delivery, pursuing the dialectical unity of inclusive equity and personalized development in practice. Consequently, it provides sustained momentum for the coordinated enhancement of both equity and quality in the foundational education stage.

However, the path to empowering basic education through digital and intelligent technologies is not without its challenges. Multiple constraints currently hinder the implementation and full realization of the “education for all” philosophy. From a practical standpoint, the application of technology often deviates from the core purpose of nurturing students, falling into the trap of prioritizing tools over substance [2]. The digital divide exhibits characteristics of “generational and deepening disparities,” reflecting not only gaps in hardware infrastructure but also class divisions in digital literacy and technological proficiency [3]. At the same time, ethical risks such as algorithmic black boxes and data security pose potential threats to the rights and interests of minors,

while the existing ethical constraint system remains imperfect [4]. Additionally, issues such as the mismatch between teachers' digital teaching capabilities and personalized educational needs, coupled with institutional designs lacking a personalized orientation, have further exacerbated the structural imbalance in technology-enabled education. This may even entrench or widen educational disparities, hindering the full realization of the inclusive potential of digital and intelligent technologies [5,6]. Currently, academic research on equity and transformation in basic education during the digital intelligence era has accumulated significant findings. Existing studies predominantly focus on dimensions such as macro-policy interpretation, algorithmic ethical risks, and technology-enabled educational equity. For instance, Boeskens L et al. demonstrated at the macro-policy level the widespread disconnect between technology adoption and teaching practice outcomes. Their research indicates that many systems still lack access to high-quality, equitably distributed digital technologies, and their implementation has failed to genuinely transform pedagogical practices [7]. In algorithmic ethics research, Baker R S et al. point out that educational algorithms may encode existing societal biases, leading to discriminatory predictions such as underestimating the risk of students from specific groups. This further marginalizes disadvantaged social groups within educational technology [8]. In research examining the relationship between technological empowerment and educational equity, Lu, S. notes that AI technologies such as educational robots are evolving from classroom tools into foundational infrastructure for advancing equitable access to quality education. However, their widespread adoption faces challenges related to cost, teacher training, and other equity concerns, necessitating policy guidance to ensure these technologies become "engines driving global educational equity" [9]. Overall, existing research predominantly focuses on singular perspectives or elements, lacking systematic deconstruction of the underlying conceptual biases, institutional shortcomings, and supply-demand imbalances that contribute to the challenges. It also falls short in developing integrated, multidimensional pathways that synthesize conceptual frameworks, technological solutions, institutional frameworks, and ethical

considerations. Consequently, it struggles to effectively overcome the multiple obstacles hindering the transition of the principle of "education for all" from theory to practice.

Therefore, grounded in humanistic educational theory, this study centers on how to overcome multiple challenges in the digital-intelligence era and advance the concept of "education for all" from theory to practice. It systematically deconstructs the deep-rooted causes of digital transformation challenges in basic education across four dimensions: conceptual understanding, technological application, institutional design, and ethical constraints, clarifying the intrinsic connections among these elements. Based on this analysis, it proposes targeted, multidimensional collaborative pathways to achieve deep integration between technological empowerment and the essence of education. This work offers new theoretical perspectives and practical references for the digital transformation of humanistic educational theory, as well as for enhancing equity and quality in basic education.

2. Humanistic Educational Theory and Analysis of Its Appropriateness

2.1 Humanistic Education Theory

Humanistic educational theory emerged in the mid-twentieth century as a profound reflection upon and transcendence of behaviorism's mechanistic "stimulus-response" model and cognitivism's tendency toward knowledge-based instruction [10]. This theory is grounded in humanistic psychology as its philosophical and scientific foundation. Its core framework is formed by Abraham Maslow's hierarchy of needs theory and Carl Rogers' person-centered theory, constituting a comprehensive educational philosophy centered on "the holistic development of the individual" [11]. This theory consistently views students as unique, complete individuals rather than passive vessels for knowledge. Its core principle is "student-centeredness," emphasizing that education aims to awaken the intrinsic motivation for development within each individual while respecting their autonomy in choice and pace of growth. Rogers asserted that truly meaningful learning is self-initiated, fully engaged, and self-evaluated—a perspective that establishes the student's right to autonomous learning as central to the teaching process. Simultaneously, this

theory places significant emphasis on the crucial role of emotional factors and psychological environment in education. It posits that learning is a process integrating cognition and emotion, dependent upon a secure, trusting, and inclusive teacher-student relationship [12]. Teachers should interact with students through sincerity, empathy, and unconditional positive regard. Maslow's hierarchy of needs theory supports this approach, indicating that fulfilling students' needs for belonging and respect is the fundamental prerequisite for generating higher-level learning motivation and pursuing self-actualization [13].

2.2 Humanistic Educational Theory and Its Relevance to the Principle of “Teaching All Students Appropriately”

Humanistic educational theory exhibits a profound intrinsic alignment with the “education for all” philosophy of the digital intelligence era, with its relevance permeating the entire process—from core aspirations and practical implementation to risk mitigation. Regarding core aspirations, “education for all” centers on the goal of “ensuring every student receives suitable education,” resonating directly with humanism's core tenets of “respecting individual differences and fostering autonomous development.” Traditional “education for all” primarily addressed the issue of equal opportunity—ensuring every child could attend school. In contrast, the “service adaptation” pursued by “education for all” represents the concrete manifestation of humanistic “student-centered” thinking in the digital-intelligence era. Both reject treating students as homogeneous entities, emphasizing that education should align with each student's unique needs.

In terms of practical implementation, although humanistic educational theory predates the digital-intelligence era, traditional technological limitations hindered the large-scale application of its personalized education concepts. The advancement of digital-intelligence technologies precisely addresses this practical gap. For instance, multimodal data collection enables “precise identification of student differences,” adaptive learning systems facilitate the large-scale rollout of “personalized instructional delivery,” and ubiquitous resource provision breaks the temporal and spatial constraints on students' “self-directed learning.” It can be said that digital and intelligent technologies provide

operational, implementable tools for humanistic education, which had previously remained largely conceptual. Conversely, humanistic educational theory guides the value orientation of these technologies' educational applications, forming a complementary and symbiotic relationship.

From a risk mitigation perspective, educational practices in the digital age face potential hazards such as technological alienation, algorithmic bias, and a lack of humanistic care. Humanistic educational theory serves as a vital compass for values and a protective barrier against such risks. The excessive expansion of technological rationality risks trapping education in the misconceptions of “data supremacy” and “efficiency first,” reducing it to a cold technological process. In contrast, humanism's emphasis on emotional care, holistic development, and ethical boundaries effectively restrains technology's tendency toward instrumentalization, ensuring education remains true to its fundamental purpose of nurturing individuals. Therefore, humanistic educational theory not only provides a solid theoretical foundation for “education for all,” but also clarifies its value orientation and practical boundaries. It is the inevitable theoretical choice for transforming the concept of “education for all” into reality in the digital intelligence era.

3.The Practical Obstacles to “Education for All”: A Deep Deconstruction from a Humanistic Perspective

The core of humanistic educational theory is “student-centered development,” emphasizing respect for individual differences, meeting personalized needs, and safeguarding students' right to autonomous growth. The current challenges in realizing “education for all” fundamentally stem from the conflict and tension between humanistic education's essence and practical factors such as technological rationality, utilitarian orientation, and role misalignment.

3.1 Technological Alienation: The Usurpation of Educational Essence by Instrumental Rationality

Digital and intelligent technologies should serve as empowering tools to achieve “education for all,” yet in practice, the instrumental rationality of technological applications has caused them to deviate from the humanistic essence of

education. On one hand, technological offerings exhibit “homogeneous coverage.” For instance, most current smart education products prioritize efficiency and data metrics in development, overlooking the individual differences among students across various stages of basic education: products for lower grades are overly entertainment-focused, violating the cognitive development patterns of younger students. Products for higher grades emphasize knowledge transmission while neglecting the cultivation of critical thinking and innovative competencies. This “one-size-fits-all” approach fundamentally treats students as standardized “data objects” rather than “whole individuals” with unique needs.

On another front, algorithmic bias and the digital divide exacerbate educational inequity. Intelligent recommendation systems, designed based on historical performance data, often push more high-quality resources to top-performing students while failing to provide targeted support for struggling learners, thereby reinforcing or even widening existing gaps. Furthermore, certain algorithms harbor implicit biases tied to geography and family background, inferring household circumstances through indirect data like device type and network environment. This indirectly diminishes rural students' access to quality educational resources. Simultaneously, disparities in digital infrastructure between urban and rural areas, as well as across regions, remain fundamentally unresolved. Insufficient network coverage and low rates of smart device ownership in rural areas, coupled with weak digital literacy among students from low-income families, create a chain reaction of access gaps, usage gaps, and capability gaps. This prevents the benefits of technology from being universally accessible to all students, contradicting the core humanistic principle of “education for all.”

3.2 Institutional Safeguards Out of Place: How Utilitarian Orientations Suppress Individual Development

The system serves as the fundamental safeguard for “education for all,” yet the current design of basic education systems—in resource allocation, evaluation frameworks, and governance mechanisms—fails to fully embody the humanistic principle of “promoting personalized student development.” This results in a disconnect between institutional safeguards and

the demands of “education for all.” First, resource allocation prioritizes efficiency over equity. Digital educational resources still exhibit a tendency to favor urban over rural areas and prestigious schools over underperforming ones. High-quality digital resources and intelligent teaching systems are predominantly concentrated in developed regions and key schools, while underperforming schools receive limited policy support and funding. This has transformed the “digital divide” in educational resources into a “quality divide,” making it difficult to ensure that rural students enjoy personalized educational services of equal quality to their urban counterparts.

Second, the evaluation system remains entrenched in a “test-score-centric” mindset. Traditional utilitarian assessment models have not fundamentally changed, with intelligent evaluation systems still emphasizing quantitative assessments of knowledge mastery while paying insufficient attention to students' core competencies, innovative abilities, emotional attitudes, and other difficult-to-quantify dimensions. This evaluation orientation deprives schools and teachers of institutional incentives to advance “education for all,” instead pushing them toward standardized teaching focused on score improvement. This approach ignores students' individual differences and personalized development needs, running counter to the humanistic goal of “comprehensive development.”

Third, governance mechanisms remain fragmented. Achieving “education for all” requires coordinated efforts from diverse stakeholders including government, schools, enterprises, and families. However, current governance lacks effective linkage mechanisms: government policy planning is disconnected from schools' practical needs, corporate R&D misaligns with educational objectives, and family involvement in education lacks professional guidance. This fragmented governance hinders the effective integration of digital educational resources, leads to unregulated technology application, and prevents the implementation of humanistic “personalized care.”

3.3 Teacher Role Lag: How Traditional Positions Constrain Adaptability

Teachers are the core practitioners of “education for all.” Humanistic educational theory

emphasizes that teachers should serve as “guides for student growth” rather than mere “knowledge transmitters.” However, the current role positioning and professional capabilities of the teaching workforce struggle to meet the practical demands of “education for all” in the digital and intelligent era. On one hand, teachers exhibit “structural deficiencies” in digital literacy. While most educators can utilize basic intelligent teaching tools, they lack the ability to interpret multimodal data, integrate adaptive systems, and design personalized teaching plans. Their application remains at the superficial level of “technology replacing traditional tools,” failing to achieve the deeper transformation of “technology empowering personalized education.” This hinders their capacity to provide precise teaching services tailored to individual student differences.

On the other hand, there exists a “cognitive bias” in teachers’ role perception. Some educators view intelligent technologies as “replacements,” over-relying on automated lesson preparation systems and homework grading tools while neglecting pedagogical innovation and personalized design, thereby losing their proactive role as guides. Meanwhile, other educators harbor resistance toward technology, lacking both the awareness and capability to proactively adopt it, thus perpetuating traditional one-size-fits-all teaching models. This lag in role positioning hinders the establishment of human-machine collaborative education models. As a result, core pedagogical functions—such as emotional connection and value guidance—remain underutilized, contradicting the humanistic teaching philosophy of “teacher-student interaction and emotional resonance.”

3.4 Lack of Ethical Constraints: How Technological Risks Infringe on Student Rights

Humanistic educational theory emphasizes safeguarding students’ right to autonomous development and personal dignity. However, the ethical risks posed by digital and intelligent technology applications are emerging as hidden obstacles to achieving “education for all.” First, the lack of algorithmic fairness infringes upon students’ developmental rights. Algorithmic designs in intelligent education systems often rely on historical data. If this data contains biases—such as gender or regional information—it can lead to algorithmic prejudice,

exacerbating educational inequality. For instance, an intelligent class-placement system’s algorithmic model, influenced by historical data showing urban students’ academic advantages, made it harder for rural students to enter high-quality classes, violating humanism’s core principle of “equal opportunity.”

Second, data privacy breaches undermine students’ personal dignity. Most students in basic education are minors. Sensitive data collected by intelligent systems—such as learning behaviors, biometric features, and family information—can easily lead to leaks or misuse without stringent protection mechanisms. Some companies exploit student data for commercial promotions or categorize students into labels like “top students” or ‘underachievers’ through data profiling. This damages students’ self-esteem, restricts their autonomous development, and violates the fundamental humanistic requirement of “respecting students’ dignity.”

Third, technological alienation diminishes humanistic care. Overreliance on smart technologies reverses the human-machine relationship, with some students becoming dependent on smart learning companions’ Q&A functions and losing independent thinking abilities. Some teachers excessively rely on technological feedback while neglecting emotional exchanges between teachers and students. This technological alienation renders the educational process cold and mechanical, lacking the “emotional warmth” and “humanistic care” emphasized by humanism, thereby deviating from education’s fundamental purpose of nurturing individuals.

4. Practical Pathways for “Education for All”: Four-Dimensional Breakthroughs Guided by Humanism

To overcome the practical barriers to “education for all,” we must ground our approach in humanistic educational theory, centering on student development. By building a coordinated pathway of action across four dimensions: technology, systems, teachers, and ethics, we can ensure that digital and intelligent technologies genuinely serve students’ personalized development and holistic growth.

4.1 Empowering Technology for Good: Building a Human-Centered Precision Matching System

The value of technology lies in serving the

essence of education, thus necessitating a shift in its application from “instrumental rationality” to “value rationality” to build a precision-tailored system aligned with humanistic needs. First, develop “personalization-oriented” intelligent educational tools. Focusing on individual differences among students across various educational stages and groups, create customized technological products. For instance, for younger students, enhance interactive and gamified designs to align with their cognitive development patterns. For rural students, develop low-cost, user-friendly smart devices and offline resources to overcome infrastructure limitations. For students with disabilities, create specialized tools like sign language instruction, speech assistance, and visual adaptation to meet their unique learning needs. Simultaneously, optimize algorithm design by eliminating discriminatory factors such as gender, geography, and family background to ensure fairness and inclusivity in algorithmic decision-making. Second, promote equitable distribution of digital infrastructure. Integrate digital education infrastructure development into the evaluation system for balanced compulsory education, increasing financial investment in rural and remote areas to achieve universal network coverage and smart device provision. Establish a “Digital Education Poverty Alleviation Mechanism” to provide smart device subsidies and internet fee reductions for students from low-income families, bridging the “access gap.” Simultaneously, implement digital literacy education for all students to cultivate their ability to use smart technologies safely and effectively, closing the “capability gap” so every student can equally benefit from technology-enabled advancements. Third, construct a “data-driven” precision teaching model. Leveraging multimodal data collection technologies, integrate student learning behavior data, cognitive feedback data, and developmental background data to build comprehensive, dynamic student profiles. This enables precise identification of knowledge gaps, learning styles, and developmental potential—not to “reduce students to data,” but to better “understand students” through data. Develop an adaptive learning path generation system based on these profiles. This system dynamically delivers personalized content, adjusts pacing and difficulty levels for each student, ensuring they consistently progress within their “zone of

proximal development” for autonomous growth. Simultaneously, establish a closed-loop mechanism integrating “instructional data, diagnostic feedback, and teaching optimization.” This provides educators with precise recommendations for instructional improvements, realizing learner-centered teaching where instruction is guided by learning outcomes.

4.2 Institutional Innovation as Safeguard: Establishing a Support Framework for Personalized Development

Institutional design must return to the humanistic goals of education, establishing a solid foundation for “education for all” through innovative resource allocation, evaluation systems, and governance mechanisms. First, establish a “fairness-oriented” system for balanced resource allocation. Develop a “Special Plan for Equitable Allocation of Digital Educational Resources,” clarifying responsibilities at all government levels regarding resource development, funding allocation, and technical training. Prioritize supporting underprivileged schools in adopting smart teaching tools, conducting teacher training, and developing school-based resources. Simultaneously, establish a “Quality Resource Sharing Assessment Mechanism,” incorporating resource sharing into school evaluation metrics. This incentivizes high-performing schools to extend quality educational resources to underprivileged schools through online teaching research, dual-teacher classrooms, and other methods, ensuring every student receives high-quality personalized services. Second, reform the “development-oriented” education evaluation system. Break away from the “test-score-centric” approach by building a humanistic, multi-dimensional evaluation system. Incorporate students' core competencies, innovative abilities, growth progress, and interests/specialties into assessment dimensions. Utilize intelligent evaluation systems to collect multimodal data, generating comprehensive, developmental evaluation reports. Simultaneously, the emphasis is on evaluation's motivational function rather than its screening function. By dynamically monitoring students' growth trajectories, progress is affirmed and potential is identified, avoiding labeling and categorization. A closed-loop mechanism of “evaluation, feedback, and improvement” is

established, transforming evaluation results into personalized teaching recommendations. This guides schools and teachers to focus on the goal of “teaching for all” rather than solely pursuing score improvements.

Third, establish a “collaboration-oriented” multi-stakeholder governance mechanism. Clearly define the roles and responsibilities of government, schools, enterprises, and families in advancing “education for all.” For instance: - Government assumes top-level design, policy formulation, funding allocation, and oversight, developing specialized policies for personalized basic education in the digital era. - Schools, as primary implementers, develop school-based smart teaching plans, integrating internal resources to advance human-machine collaborative teaching. Enterprises should concentrate on educational needs, developing highly adaptable, cost-effective intelligent education products while avoiding excessive commercialization, and participating in public welfare projects to support resource equity. Families should enhance their digital literacy, collaborate with schools on personalized education, and prioritize children's physical and mental well-being alongside holistic development. By establishing a collaborative governance platform among government, enterprises, schools, and families, information sharing, resource integration, and synergistic coordination can be promoted, forming a human-centered educational synergy.

4.3 Teacher Professional Transformation: Cultivating Human-Machine Collaborative Teaching Capabilities

Teachers are practitioners of humanistic educational philosophy, requiring professional empowerment to drive role transformation and cultivate educational capabilities that integrate humanistic literacy with technological proficiency. First, it is essential to establish a “human-centered” professional development system for teachers. “Personalized educational capabilities” should be the core focus of teacher training: strengthen training in data interpretation skills, teaching educators to precisely identify students' individual needs through student profiling data. Simultaneously, enhance training in technology integration to guide teachers in deeply integrating smart tools with teaching practices, enabling the design of personalized instructional plans. Additionally,

strengthen training in emotional communication skills, emphasizing the importance of teacher-student interaction to prevent technology from diminishing humanistic care.

Second, we must facilitate the transformation of teachers' roles from “knowledge transmitters” to “growth facilitators.” Let digital and intelligent technologies handle repetitive, procedural knowledge delivery tasks, while teachers focus on higher-level educational responsibilities: as “learning designers,” they should create personalized learning paths and instructional activities for each student based on student profiles and educational principles; as “thinking guides,” they should cultivate students' independent thinking and problem-solving abilities through heuristic questioning and deep engagement. As “emotional caregivers,” they attend to students' physical and mental well-being and emotional needs, bridging the emotional gap in human-machine interactions. As “value guides,” they integrate moral education throughout the teaching process, cultivating students' sound values, well-rounded personalities, and social responsibility, thereby embodying the humanistic essence of education. Third, establish a “human-machine collaborative” teaching community. Define clear boundaries and divisions of labor between humans and machines: intelligent systems handle repetitive tasks like student performance analysis, resource recommendations, and assignment grading, while teachers focus on core educational functions such as personalized tutoring, critical thinking training, emotional connection, and value guidance. Establish a collaborative teaching model between educators and AI systems. By leveraging complementary strengths, achieve an organic integration of “technology-enabled teaching and humanistic care,” making “education for all” more compassionate and human-centered.

4.4 Ethical Regulation as A Safety Net: Safeguarding Students' Right to Autonomous Development

Ethics form the fundamental value foundation of humanistic education. Systematic ethical regulations are essential to mitigate technological risks and safeguard students' individual dignity and right to autonomous development. First, an “algorithm fairness review mechanism” must be established. Develop “human-centered standards for

educational AI algorithms,” requiring developers to disclose algorithmic principles, decision-making logic, and data sources. An Algorithmic Fairness Review Committee—comprising education experts, ethicists, teacher representatives, and parent representatives—should evaluate fairness in core domains such as resource allocation, class placement, and assessment diagnostics. Simultaneously, a dynamic algorithm monitoring and correction mechanism should be established to track algorithm outcomes in real time. Should biases or inequities be detected, algorithm parameters must be promptly adjusted to ensure decisions align with the humanistic principle of “for everyone.”

Second, strengthen data privacy protection for minors. Develop “Detailed Rules for Protecting Minors' Data Privacy in Basic Education,” clearly defining boundaries for data collection, storage, use, and transmission. Prohibit excessive collection of sensitive information such as household income, parental occupation, and biometric data. Data collection from students requires guardian consent, with clear purposes and timeframes defined. Educational institutions and enterprises must establish rigorous data security management systems, employing encryption and data anonymization to prevent leaks. Student data must not be used for non-educational purposes like commercial promotions or advertising, safeguarding students' dignity and privacy rights.

Third, regulate technology usage while upholding the essence of education. Develop “Human-Centered Guidelines for Digital Intelligence Technology in Basic Education,” limiting smart device usage time and scenarios for younger students to prevent harm to vision and physical/mental health. Educational smart products must not categorize students through labeling, nor use student data for utilitarian purposes like rankings or comparisons. Simultaneously, strengthen the humanistic orientation of technology applications by requiring smart educational products to incorporate motivational language and emotional feedback functions, avoiding cold technological logic. Guide schools and teachers to balance technology application with humanistic care, ensuring that “teaching without discrimination” prioritizes both “appropriate teaching” and “nurturing education,” returning to the fundamental pursuit of education.

5. Conclusion

In the era of digital intelligence, “education for all” fundamentally represents the digital-intelligent implementation of humanistic educational theory. Its core principle is to harness technology to serve students' personalized development, returning education to its essence as a student-centered endeavor. However, the current humanistic educational ethos conflicts with technological rationality and utilitarian orientation. To resolve this dilemma, we must uphold humanistic principles by: leveraging technology for good to build precision-matched systems; fostering institutional innovation to establish safeguarding frameworks; transforming teachers to cultivate educational competencies; and implementing ethical regulations to protect student rights. Only then can we reconcile the contradiction between “homogeneous supply” and “individualized demand,” and resolve the tension between “technological dividends” and “equity gaps.” Looking ahead, as digital and intelligent technologies advance, institutional frameworks mature, teacher expertise deepens, and ethical regulations strengthen, the vision of “education for all” will gradually transition from ideal to reality. Every student—regardless of background, location, or innate abilities—will gain access to high-quality education tailored to their developmental needs, enabling comprehensive and personalized growth through education. This represents both the digital and intelligent implementation of humanistic educational theory and the ultimate value destination for educational equity in the digital age.

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