Technology Empowerment and Value Repositioning: The Dilemma and Approach of College Physical Education Major Admissions in the AIGC Era

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ABSTRACT
The intelligent technology revolution is reshaping the higher education enrollment ecosystem at an unprecedented depth, releasing the dividends of innovation while also triggering new governance challenges. This article focuses on the enrollment scenarios of physical education majors in colleges and universities. By systematically examining the embedding paths of technologies such as artificial intelligence-generated content (AIGC) and the theories derived from them, it holds that the future reform of physical education major enrollment must adhere to the value coordinate of "people-oriented". Only by strengthening the interactive mechanism of human-machine collaboration, building an evaluation model that integrates data and emotion, enhancing the digital literacy of teachers and students, and firmly establishing the bottom line of educational equity can a new digital enrollment paradigm that is both efficient and warm be constructed, leading the modernization transformation of higher education enrollment work.

Keywords: *AI-based college admissions, PE major, AIGC, Human-centered system.*

1. INTRODUCTION

The global education sector is undergoing a profound transformation driven by digital technology, which is reshaping knowledge[1]. As the basic paradigms of knowledge transmission, skills training and academic research, digital technologies, especially cutting-edge ones like artificial intelligence, big data and virtual reality, have brought unprecedented possibilities to college admissions, such as the optimization of resource allocation, the improvement of information dissemination efficiency and the enrichment of evaluation methods. It is not only an enabler for promoting the global sharing of educational resources, the integration of virtual and real teaching scenarios, and the innovation of educational evaluation, but also nurtures the global higher education form towards wisdom

The "metamortization" trend of evolution towards globalization and ubiquity may also become a challenger to the risks of "distortion" such as the emotional estrangement between teachers and students, the solidification of learning paths, and the fragmentation of knowledge systems. This reflects the profound tension between the instrumental rationality of technology and the humanistic essence of education, and may lead to the phenomenon that the deeper the penetration of technology, the more easily the "essence of nurturing people" in education is diluted by technological logic [2]. Therefore, the ethical risks, cognitive conflicts and value tensions exposed in the practical process urgently require profound reflection and prudent response from the academic community.

College sports are an important condition for leading the inheritance of college sports culture, innovating the development model of college sports, and pursuing and realizing a better life. As an important part of higher education, they shoulder the responsibilities and missions bestowed by The Times[3]. The enrollment of physical education majors in colleges and universities has distinct particularities and complexities. It not only concerns students' motor skills and physical fitness

levels, but also involves the identification of comprehensive qualities such as willpower, teamwork, and tactical intelligence.

The traditional enrollment model has limitations in terms of coverage, accuracy and interactivity. However, with the in-depth application of digital technology, the enrollment strategies of colleges and universities are undergoing transformation[4]. At the same time, the "all-round development of individuals" and "physical presence experience" emphasized in the evaluation of sports talents have an inherent tension with the standardization and quantification pursued by digitalization. Therefore, this article focuses on the recruitment of sports majors in colleges and universities under the digital wave, aiming to systematically analyze how key technologies such as AIGC reshape the recruitment process and deeply explore the cognitive dilemmas and ethical challenges they bring. On this basis, explore how to always adhere to the value orientation of "people-oriented" in the application of technology and effectively ensure educational equity, thereby providing theoretical references and practical guidance for building a scientific, efficient and warm modern enrollment system.

2. EMPOWERMENT OF AIGC

The empowerment of digital technology in the enrollment of physical education majors in colleges and universities is reflected. The introduction of digital technology has brought about profound changes in multiple dimensions to the enrollment of sports majors, mainly reflected in the innovation of publicity models, the expansion of evaluation systems, and the improvement of work efficiency.

2.1 Creating Immersive Enrollment Scenarios

The Digital immersive scenes are a new concept that has emerged with the development and application of technologies such as virtual reality, the Internet, and the metaverse. Generally speaking, they refer to fields that form tourism emotional experiences and conduct "human-machine-object" spatio-temporal interactions through the interconnection, switching, and integration of digital technologies[5]. Thereby enhancing emotional connection and experience perception, virtual reality (VR), augmented reality (AR), and mixed reality (MR) technologies can transcend the planar limitations of text, images, and videos, and build highly realistic "immersive enrollment scenarios". Potential candidates can wear wearable devices to remotely "immerse themselves" in the modern sports venues, training centers and even competition sites of universities, and enjoy autonomous roaming and interactive experiences. For instance, one can virtually participate in a basketball training session or conduct tactical simulations with a "virtual opponent" generated by the system. This immersive experience greatly enhances the intuitiveness and appeal of information, enabling candidates to make school selection decisions based on deeper perception and emotional resonance, effectively improving the attractiveness and conversion rate of enrollment promotion.

2.2 Building a "Data Profile" Model

The Data profiling is a brand-new concept in the exploratory stage, which originates from the behavioral psychology concept of "profiling". Profiling, as a psychological method and technique, does not subjectively label and categorize groups of people, but rather psychologically reconstructs digital human groups based on psychological traces through empathy. From the perspective of the online society, it doesn't matter who you are; what matters is how you want to act"Data profiling" in achieving precise and personalized enrollment promotion refers to the use of big data analysis and AIGC technology to construct multi-dimensional and three-dimensional profiles of potential students. The system can integrate and analyze the publicly available behavioral data of candidates on various platforms, such as the sports they follow, the training content they browse, and the online communities they participate in. By combining their consultation records and interactive feedback, it can accurately identify their interest directions, professional preferences, and development potential. Based on this, AIGC can automatically generate and push highly customized enrollment information, such as mentor introductions that match their characteristics, detailed explanations of professional courses, future career development paths, and even successful cases of alumni, achieving precise reach that is "tailored to each individual". This not only significantly enhances the efficiency of enrollment promotion work, but also better meets the personalized information needs of candidates.

2.3 Expanding the Dimensions of Comprehensive Evaluation

Supporting the concept of "all-round human development" The application of AIGC technology, the people-oriented concept, as an educational ideology centered on students, is increasingly valued in higher education. This concept emphasizes respecting human value, dignity and individual development[7]. This enables the enrollment evaluation to go beyond the traditional binary framework of "cultural scores + physical education tests" and expand to a more comprehensive quality assessment. In terms of institutional design, the system can be guided to focus on the multi-dimensional growth indicators of learners. For instance, by analyzing a candidate's application statement, project experience, recommendation letters and interview performance (which can be transformed into text analysis), AIGC can assist in assessing their mental health literacy (such as stress resistance, emotional stability), emotional needs (such as inner passion for the sports industry, sense of team belonging), and social adaptability (such as communication and collaboration, leadership potential). This model, which takes academic performance, mental health, emotional needs and social adaptability into account, provides technical possibilities for the initial implementation of the educational goal of "all-round human development" in the enrollment process.

3. THE DILEMMA OF COGNITION

Scalar The cognitive predicament of integrating digital technology into the enrollment of physical education majors in colleges and universities. While technology brings convenience, its deep integration has also triggered a series of cognitive dilemmas and ethical challenges that must be faced squarely.

3.1 The Potential Risk of Instrumental Rationality Overstepping Value Rationality

Rooted in the admissions system's excessive allegiance to the logic of "calculability." When algorithms reduce an athlete's qualification to scattered data—race times, heart-rate curves, key video frames—the "tacit dimensions" that no sensor can register—grit under adversity, rule-respect, spur-of-the-moment creativity, altruistic impulse—are expelled from the decision set. The outcome is a slide from "educational selection" to "technical sorting." Data precision appears to rise, yet the core aim valorized by value rationality—"foster virtue and cultivate people"—is pushed to the margin, ultimately triggering an endogenous drift of the institution's purpose.

3.2 Creating Algorithmic Fairness and The Structural Tension of The "Digital Divide"

Figures Algorithmic fairness and the structural tension of the "digital divide", The fairness of AIGC and recommendation algorithms presupposes distributional alignment in the training data. When samples are missing-not-at-random across dimensions such as region or socio-economic status—e.g., urban and upper-middle-income users are over-represented—model parameters converge to a biased optimum, producing a systematic negative bias against rural and economically disadvantaged applicants (a violation of statistical parity).Moreover, the three-tier digital divide—access divide, usage divide and knowledge divide—created by disparities in device availability, network quality and digital literacy generates a fresh Matthew effect in admissions: advantaged groups leverage high-bandwidth environments and algorithm-based coaching tools to maximise information gains, while disadvantaged groups suffer inferior signal extraction because of limited technological access. The interaction of these two mechanisms amplifies ascribed inequality, openly clashing with the "inclusive growth" goal championed by the Education Digitalisation Strategic Initiative.

3.3 The Blurring of Decisional Agency and the Accountability Impasse

The By automating information filtering, feature extraction, and score-based ranking, AIGC systems offload part of the cognitive burden from admissions staff onto algorithmic agents. Once the technical black box inserts itself into the chain of value-laden judgments, the human decision-maker's three-stage function of "attention–interpretation–accountability" is partially outsourced, triggering responsibility diffusion and "automation bias": officers tend to regard algorithmic output as neutral evidence, weakening independent questioning and second-pass verification. If a subsequent admission outcome proves skewed, the upstream causal chain—data

contamination, model specification, interface design, human re-checking, and more—becomes a tangle of overlapping factors, making it impossible to anchor liability precisely. This blurring of responsibility erodes the procedural justice of the admissions regime, magnifies potential litigation risk and trust depreciation, and poses a structural threat to the authority and credibility of the entire enrollment process.

4. HUMAN ORIENTATION

Rooted Human-Centered: crafting a warm digital pathway to sports-program admissions. To untie the knots outlined above, the meta-norm of admission reform must be anchored in a human-centered ethical coordinate system: re-embed the technical apparatus within the ultimate end of "human sustainable development," instead of bending people to algorithmic efficiency. Its core is to set the inviolable dignity and all-round development of the person as the upper value bound, and educational equity plus procedural justice as the institutional lower bound. Through institutional designs that are explainable, contestable and accountable, AIGC is confined to the role of a "cognitive amplifier," while the final locus of decision-making remains inside the public sphere of human value deliberation—thereby preventing the ends of technology from colonizing the essence of education in reverse.

4.1 The Strengthening Human-Machine Collaboration

It is necessary to build a warm interactive mechanism.

Technical systems must be explicitly positioned as "cognitive amplifiers" rather than "decision substitutes." After AIGC completes the initial information processing and candidate-set generation, a three-step human-in-the-loop cycle—review–explain–challenge—should be embedded:

- The system outputs its decision basis in an explainable form;
- Admissions experts contextually adjust algorithmic weights grounded in professional ethics;
- Empathetic evaluation of candidates—via online or in-depth interviews—focuses on tacit dimensions such as willpower and sportsmanship.

In this way, algorithmic efficiency is coupled with educational warmth, ensuring that technology always serves the holistic development of the person. Concrete practices include: Live-stream Q&A sessions led by veteran coaches and faculty, one-to-one peer pairing between promising applicants and current students, and sincere online interviews at key decision nodes. These measures compensate for the emotional deficit of purely digital interaction and create an admissions experience imbued with human care.

4.2 Integrating Affective Care and Data

There is a must to escape the algorithmic trap. The admissions evaluation system must be built on a "quantitative-qualitative" dual-track architecture: while ingesting structured data such as athletic performance and physiological indicators output by AIGC, it simultaneously feeds narrative evidence—personal statements, training logs, match videos, community sports-service records, and semi-structured interview performances—into the same scoring function and accords them legally binding weights. Admissions officers must receive training in algorithmic ethics and critical thinking to exercise "necessary skepticism" toward system recommendations: if qualitative materials reveal high-order tacit competences (e.g., resilience, altruism, on-the-spot creativity) and the evidential chain is coherent, they may trigger a "human override" procedure that raises the composite score within the standard-error tolerance. This institutionalized "humanistic correction" prevents the cognitive trap of data-only determinism and achieves a balance between scientific precision and educational warmth.

4.3 Enhancing Digital Literacy of Teachers and Students

The clarify ethical responsibilities provide regular, ongoing training for admissions staff so that they master not only the operational skills of digital tools but also their underlying logic, potential biases, and ethical limits. At the same time, universities must establish robust rules and regulations governing AIGC use, explicitly defining the technological role's boundaries within the admissions workflow and the responsibility attribution of personnel at each stage, thereby ensuring that humans retain both agency and ultimate accountability in admission decisions.

4.4 Safeguarding the Bottom Line of Educational Equity

Order concern. on the one hand, algorithmic models should undergo systematic fairness audits and continuous optimization to detect and eliminate data-driven bias. On the other hand, inclusive technology measures—such as providing digital devices and network subsidies for economically disadvantaged applicants, guaranteeing barrier-free access to the digital admissions platform, and disseminating admission information through multiple channels—must be implemented so that technology serves as a bridge to educational fairness rather than a new barrier.

5. CONCLUSION

The Digital technology—armed with potent capabilities in content generation, data analytics, and scenario construction—has injected new momentum into the modernization of admissions, delivering visible gains in outreach, evaluation, and overall efficiency. Yet we must remain keenly aware that technology is a double-edged sword: while it empowers, it also intensifies instrumental rationality, equity deficits, and the erosion of human agency.

Looking ahead, the healthy development of sports-program admissions must move beyond a one-dimensional quest for efficiency and return to education ' s original mission—the holistic development of every person. By cultivating a new admissions ecosystem that pairs human and machine intelligence, blends reason with empathy, clarifies rights and responsibilities, and guarantees inclusive access, we can achieve a harmonious unity between technological empowerment and educational values in the digital era. In doing so, we will not only identify outstanding future athletes for our universities, but also contribute wisdom and strength to the fair, scientific, and high-quality advancement of the entire higher-education admissions system.

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