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Classify Education Planners and Construct A Training Framework for Education Planning and Management in the AI Era

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Abstract **Original Research Article**

Various countries around the world have gradually formed rich practical experience in empowering higher education planning and management with artificial intelligence. The development of artificial intelligence technology has not only changed traditional social structures, economic models, and cultural life, but also profoundly influenced the way education planning and management are carried out. However, many educational planners do not yet have the corresponding ability to use artificial intelligence to develop educational plans and improve management efficiency. For addressing this problem, establish the framework of training on the application of artificial intelligence in educational planning and management is a key measure to promote the digital transformation of the education system and improve governance efficiency. This study build the AI for Educational Planning and Management Training based on the dimensions of cognition, motivation, and behavior. These three dimensions form an interconnected closed loop to utilize artificial intelligence to promote the upgrading of educational planning and management.

Keywords: Higher Education, Artificial Intelligence, Educational Planning, Educational Management, Training.

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1. BACKGROUND

The origin of the term "governance" can be traced back to ancient Latin and Greek, and its original meaning was the action or method of controlling, guiding, or manipulating (Zhu & Xu, 2025). Higher education governance has shown different forms of existence and characteristics in different historical periods and countries (Ge et al., 2025). "Governance" is the core operation of higher education, which aims to achieve the goals of talent cultivation, scientific research, and social services by establishing order. It focuses inward on the value, decision-making, and resource allocation of universities, and outward on the relationship between universities, government, industry, and communities (Yang & Tang, 2024). Higher education digital governance refers to the practical process in which higher education utilizes digital information technology, collected data information, and research set digital calculation rules to deeply adjust the power and responsibility relationships and resource allocation among governance entities (Liu et al., 2025). Artificial intelligence (AI) has ushered in a transformative era for education, with profound implications across various sectors. Today, AI technologies are enabling universities to enhance decision-making through data-driven insights and predictive analytics, optimize operations for efficiency, and personalize learning experiences at unprecedented levels (Douse, 2024). However, AI also poses challenges, such as the need for ethical considerations, data privacy, and upskilling the workforce to harness AI's full potential.

AI is no longer optional — it's foundational to how modern organizations operate, compete, and innovate (Hou & Guan, 2025). AI opens up new governance thinking and paths, making smarter, more open, more scientific, and more efficient governance possible. The concept of intelligent governance, collaborative governance entities, data governance methods, and efficiency governance goals are becoming the new core of higher education governance in the era of artificial intelligence, promoting the transformation of higher education governance towards new forms (Huang, 2025). According to McKinsey, Generative AI alone could add up

to $4.4 trillion annually to the global economy — but only for organizations that know how to implement it effectively. From content generation to autonomous decision-making, AI is transforming everything from customer experience to strategic planning. Yet many leaders still struggle to bridge the gap between awareness and action. 59% of hiring managers say the rise of AI will have a substantial or transformational impact on the types of skills their companies need. 71% of organizations regularly use generative AI in at least one business function. 77% of executives agree that AI agents will reshape how digital systems are built, and believe digital ecosystems must be designed for agents as much as humans.

Many educational planners are looking to build AI strategies or initiatives for their organization or to deepen their awareness about this revolutionary new technology. For example, IIEP-UNESCO and Beijing Normal University's Smart Learning Institute have launched a two-year research project Empowering Educational Planning and Management with AI and Other Innovative Digital Tools to address this knowledge gap. An effective training of AI for Educational planning and management will give them the knowledge and practical application they need to learn how AI is driving education transformation and how AI can be used to grow a new educational planning and management model. The training of AI for Educational planning and management will deepen the understanding of how rapidly emerging AI technology is impacting education today. Develop educational planners' ability to strategically think about how to apply artificial intelligence to organizations or create new artificial intelligence programs. Through training methods such as practical exercises, interactive lectures, and dynamic discussions, encourage students to explore validated educational theories and strategic tools.

The absence of data-driven decision-making represents a significant challenge in educational planning, and AI holds the potential to mitigate this issue. Integrating AI into educational planning may change the operational dynamics of educational institutions. However, the major challenge facing its adoption is the lack of clear understanding among educational planners about the benefits and limitations of artificial intelligence. In addition, existing literature on the application of AI in educational planning and management is scattered, indicating an urgent need for a comprehensive framework to guide the application of AI in educational planning and management. Furthermore, concerns regarding data privacy and security must be addressed to ensure the ethical deployment of AI in this context (Aniekan et al., 2024)

Therefore, classify education planners in the AI era and organizing training on the application of AI in educational planning and management is a key measure to promote the digital transformation of the education system and improve governance efficiency. Its importance is reflected in multiple dimensions: it can help education managers break down technical barriers, understand and master the adaptability and practical logic of AI in educational scenarios and avoid AI tools being idle or misused; it will assist in optimizing the allocation of educational resources and enabling managers to develop targeted plans based on AI output predictions with shifting from "brainstorming decisions" to "data-driven decisions"; it will reduce decision-making risks and promote educational equity; it wil help educational planners foresee AI driven changes in educational scenarios and drive innovation in educational models. In addition, educational planners should ensure the security and compliance of educational data, enable managers to grasp relevant regulatory requirements, and establish full process standards for AI applications.

2. AIM AND OBJECTIVES

This study aims to classify education planners in the AI era and design a training program to prepare those with strategic decision-making responsibilities to effectively analyze, articulate, and apply key AI management and leadership insights in their work and that of their teams and universities. By training to hone leadership skills and promote management improvement of senior-level higher education leaders, it will advance their mission of development for the organization. This training is an inevitable requirement for injecting "digital governance capabilities" into the education system, realizing the transformation of educational governance concepts, and supporting the high-quality development of education in the new era.There are two objective in this study: Firstly, analyze and classify the population who use AI and those who do not use AI for educational planning and management. Secondly, design the training on how to use AI for educational planning and management.

3. THE METHODOLOGY

It is based on an analysis of a range of education and public administration frameworks worldwide, practice and consultations with practitioners in the field. This means that the Design of the AI for Educational Planning and Management Training covers competencies needed by educational planners and managers in education systems worldwide. A review of the relevant secondary literature was also undertaken.

This AI for Educational Planning and Management Training is characterized by a commitment to an interactive and engaging learning experience. With a blend of crisp lectures, hands-on workshops, group activities, and structured social interactions, faculty aim to maximize the value created during the training time together. Throughout four-week training, educational planners will also work independently and in small groups to create a personalized AI playbook. Ample time will be dedicated to reflections on key learning and understanding how to apply these insights to their universities.

The main elements of this four-week courses of AI for Educational Planning and Management Training are: AI Ethics in Education(Prepare for the future and learn the best way to use new AI tools and capabilities, AI Strategy for Educational Leaders (Creating Value with AI in Educational planning and management, Leverage AI to

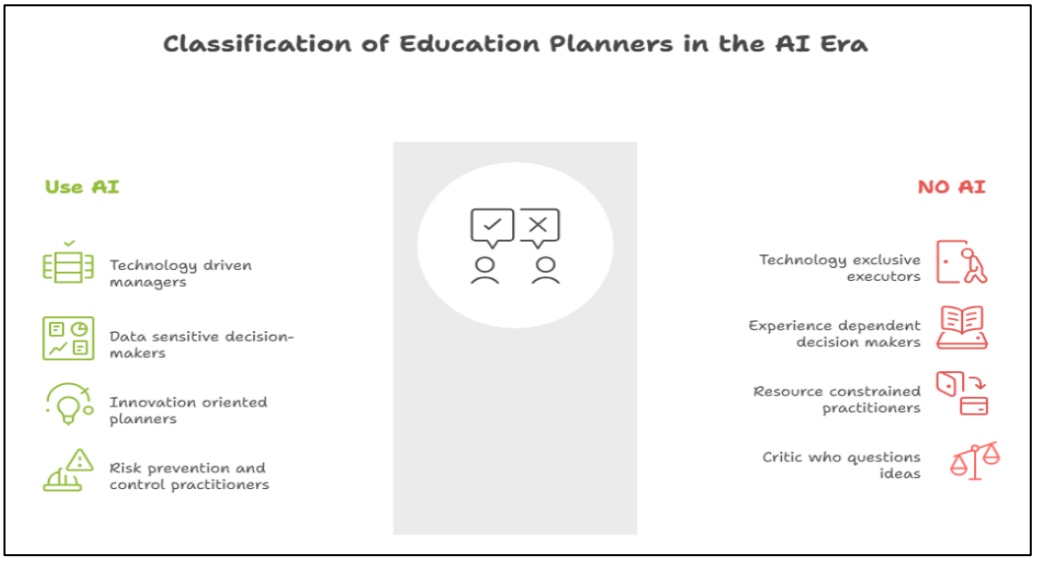
unlock strategic value and accelerate growth), Foundations of Data-Driven Decision Making with AI (Learn how to utilize data sets and AI to improve team communication and create effective educational management strategies), Leveraging Multi-sided Platforms with AI for Educational Leaders (Unlock new growth opportunities by navigating the platform economy and harnessing AI for strategic advantage), AI Business and Management Impact (Understand AI capabilities today and define the transformative business and management impact its technologies and techniques can have on your organization), AI Strategic Innovation (Define the relationships between AI technologies and data that support strategic innovation and deliver demonstrable business advantage), AI Optimizing Application (learn techniques to optimise AI performance and ensure responsible application of AI in your organizations), AI Human Elements (Develop approaches to AI workforce readiness and culture that combine human and machine capabilities in complementary systems), AI Trajectory (Build an intuition for current and future AI trends and trajectories likely to impact your organization in the near and next futures), AI Playbook (Create a personalized AI playbook that operates as a roadmap for the responsible and optimized application of AI in your organization, starting today).

4. FINDINGS

4.1 Classification of Education Planners in the AI Era

In the field of educational planning and management, the groups of people who "use AI" and "do not use AI" are not simply divided by whether they use tools, but reflect different cognitive concepts, work modes, and value orientations. The specific types of the two groups of people are classified as the figure 1.

Figure 1: Classification of Education Planners in the AI Era



Types of people using AI for educational planning and management

The core characteristic of this group of people is to actively view AI as a "collaborative tool" to enhance planning scientificity, management efficiency, and educational equity. Their behavior revolves around "technology empowering educational governance", which can be specifically divided into four categories.

(1) Technology driven managers

They possess basic technical knowledge, actively explore the adaptability of AI in educational scenarios, and view technology as an "efficiency amplifier". In terms of Behavioral Performance: Proactively learn the operational logic of AI tools (such as education data analysis platforms and intelligent prediction models), and be able to independently generate basic reports using AI (such as "regional teacher staffing gap prediction" and "student dropout risk warning"). Promote the team to establish an AI application process (such as the requirement to use AI to analyze academic quality data three times per semester as the basis for adjusting teaching plans). Prioritize the procurement or development of educational AI systems (such as equipping schools with intelligent scheduling systems and student growth profiling tools). In terms of Inner Thoughts: It is believed that the essence of educational management is the processing and decision-making of complex information, and AI can solve problems such as "information overload" and "manual calculation errors" through big data analysis, thereby freeing up manpower to handle more complex and creative work (such as the humanistic care design of educational policies). In terms of Practical Impact: Promote the transformation of education management from "extensive"

to "refined", for example, by using AI to monitor the resource utilization efficiency of each school in real time (such as laboratory utilization rate, funding expenditure and teaching effectiveness correlation), and optimize resource allocation in a timely manner.

(2) Data sensitive decision-makers

They firmly believe that "data is the cornerstone of decision-making", relying on AI's data analysis capabilities to compensate for the limitations of empirical decision-making. In terms of Behavioral Performance: Require planning and management plans to be accompanied by AI generated "data evidence" (such as "the location of new schools should be based on AI analysis of population inflow, transportation convenience, and overlapping school district coverage in the next 5 years"). Compare multiple sets of prediction results from AI models (such as "differences in degree demand under different fertility assumptions"), and then select the optimal solution based on policy objectives. Regularly review the deviation between AI predictions and actual results (such as "Last year's AI predicted teacher gap in a certain subject was 5% different from the actual gap, and the model's parameter weights need to be adjusted"). In terms of Inner Thoughts: It is believed that the complexity of educational issues, such as the urban-rural education gap and student growth patterns, far exceeds the coverage of individual experience. By modeling massive historical data, such as enrollment numbers, teacher turnover rates, and changes in academic quality over the past decade, AI can reveal patterns that are difficult for the human eye to detect. In terms of Practical Impact: Reduce the "subjective bias" in decision-making, for example, in the equalization planning of compulsory education, avoid excessively tilting resources due to "impression preferences for a certain school", and allocate resources based on AI's comprehensive evaluation of "hardware compliance rate, teacher structure, and student satisfaction" of each school.

(3) Innovation oriented planners

They regard AI as a catalyst for reconstructing the education ecosystem, focusing on breaking through the boundaries of traditional education management with technology. In terms of Behavioral Performance: Design forward-looking scenarios for "AI+education" (such as "AI based cross regional teaching and research community" - using AI to analyze the teaching advantages of different schools and automatically match cross school cooperation projects; Personalized Education Resource Scheduling System "- intelligently pushes adapted online courses and teacher tutoring resources based on students' learning trajectories. Promote innovation in management mechanisms to adapt to AI applications (such as adjusting teacher assessment standards and incorporating "AI assisted personalized teaching effectiveness" into evaluation indicators); Establish a "Home School AI Collaborative Platform" to enable parents to view students' growth data in real-time through AI and participate in educational decision-making. In terms of Inner Thoughts: It is believed that the bottlenecks of traditional education management, such as standardized teaching being unable to meet personalized needs and cross school resource barriers, need to be overcome through technological revolution. The core value of AI is not only to improve efficiency, but also to create new educational possibilities. In terms of Practical Impact: drive the transformation of education mode from "standardized supply" to "personalized service". For example, in the vocational education planning, analyze the regional industrial upgrading trend (such as the growth of talent demand in the new energy industry in a region) through AI, and adjust the professional settings and curriculum content of vocational colleges in advance.

(4) Risk prevention and control practitioners

They emphasize the "compliance and fairness" of AI applications, and embed risk management awareness in technological empowerment. In terms of Behavioral Performance: Establish an "ethical review mechanism" for AI applications (such as requiring all educational AI tools to pass "algorithmic bias detection" - to avoid misjudging the needs of specific groups due to gender and regional discrimination in historical data). Restricting the decision-making authority of AI (such as "AI can recommend a list of poverty-stricken student assistance, but the final list needs to be manually reviewed to ensure that 'special families whose data is not covered' are not missed"). Regularly conduct AI data security training (such as requiring managers to strictly comply with the Law on the Protection of Minors and prohibiting AI systems from excessively collecting student privacy data). In terms of Inner Thoughts: Recognizing that "AI is a double-edged sword" - algorithms may pose "systemic risks" due to data sample bias and technological limitations (such as misjudging the psychological state of left behind children), therefore, a dual constraint of "technology+system" is needed to ensure that they serve educational public welfare goals. In terms of Practical Impact: To avoid the "negative spillover" of AI applications, for example, in educational evaluation reform, manually correcting the "student comprehensive quality score" generated by AI can prevent algorithms from overly focusing on academic performance and neglecting "soft indicators" such as students' social practice and moral qualities.

Types of people who do not require AI for educational planning and management

The core characteristic of this group of people is that they have not incorporated AI into their regular workflow, and their behavior is essentially "relying on traditional experience, resource conditions, or conceptual cognition to make decisions", which can be specifically divided into four categories.

(1) Technology exclusive executors

They believe that there are "capability barriers" or "lack of trust" in AI technology, and passive avoidance of technical tools. In term of Behavioral Performance: Refusing to use AI tools on the grounds of "lack of technical knowledge"

and still using traditional methods such as "manual statistics in Excel spreadsheets" and "making decisions based on impressions during meetings and discussions". Even if equipped with an AI system, it is only used as a "decoration" (such as asking subordinates to generate reports on behalf of others, but never analyzing the content of the reports). Doubtful about the output results of AI (such as' the algorithm said it needed to hire 10 more English teachers, but I don't think it's necessary, there wasn't such a shortage last year '). In terms of Inner Thoughts: On the one hand, it may lead to usage barriers due to "insufficient digital literacy" (such as older age and lack of technical training); On the other hand, one may think that "AI is a 'black box' and not as reliable as one's own experience" (such as "I have been in education management for 20 years, and I can tell where the problem lies just by looking at the data, without the need for machines to calculate"). In terms of Practical Impact: It leads to low management efficiency and is prone to decision-making bias due to incomplete information processing. For example, in the division of school districts, the lack of AI analysis of detailed data such as "student commuting distance and school carrying capacity" has resulted in students in some areas being too far away from school.

(2) Experience dependent decision makers

The people firmly believe that "education is a 'human' career, and experience is more important than data", and view AI as a "cold technology that cannot understand the complexity of education". In terms of Behavioral Performance: The basis for the planning scheme is "past successful cases" (such as "last year's allocation of teaching staff was effective, this year we will follow suit"), rather than data trends. Emphasize the "flexibility of education" and believe that AI's "standardized model" will constrain management innovation (such as "each school's situation is different, how can we rely on algorithms to arrange uniformly"). The decision-making process relies on "interpersonal relationships and intuition" (such as "listening to the principal say that a certain subject is short of teachers, giving priority to the quota"). In terms of Inner Thoughts, They believe that the core of education is "teacher-student interaction and humanistic care", which are difficult to quantify by data, and the experience of managers (such as understanding school culture and grasping teacher psychology) cannot be replaced by AI. Overreliance on technology will "alienate education". In terms of Practical Impact: It may lead to a disconnect between planning and reality, for example, when dealing with changes in the demand for school places caused by population mobility, relying only on "past 3 years of experience" without using AI to predict the trend of population inflow in the next 5 years, resulting in school construction lagging behind actual demand.

(3) Resource constrained practitioners

They are not rejecting artificial intelligence, but rather unable to apply it due to insufficient technology, funding, and talent. In terms of Behavioral Performance: Lack of basic AI tools (such as education bureaus in impoverished areas may not even have a unified education data platform, let alone the ability to use intelligent analysis systems). No one in the team has the ability to operate AI (such as township school managers who are mostly subject teachers and lack data analysis skills). Due to budget constraints (such as inability to afford commercial education AI systems and inability to independently develop them). In terms of Inner Thoughts: AI applications require supporting resources such as "data infrastructure (such as a unified education database), technical tools, and professional talents", and in some areas (especially rural and underdeveloped areas), the education system has not yet completed digital infrastructure construction, which objectively cannot support AI applications. In terms of Practical Impact: exacerbating the "regional gap" in education management, for example, when developed regions use AI to accurately allocate resources, underdeveloped regions still suffer from imbalanced resource allocation due to information blockage, further widening the gap in education development.

(4) Critic who questions ideas

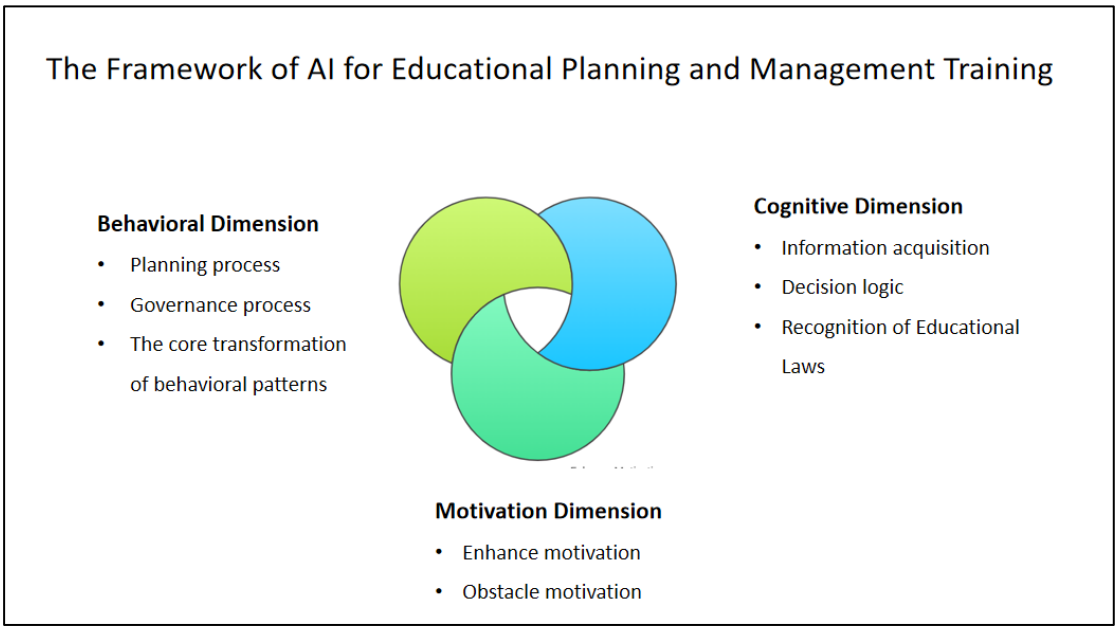
They are cautious about the "technological hegemony" of AI, believing that it may "erode educational equity and replace human values," and actively choose not to use artificial intelligence. In terms of Behavioral Performance: Publicly oppose the use of AI for core educational decision-making (such as "opposing the use of AI to label students and allocate high-quality resources"). Emphasize the "public welfare nature of education" and believe that the commercial attributes of AI (such as data being utilized by enterprises) may harm the purity of education. Advocate for "slow management" and believe that educational planning requires "long-term observation and humanistic thinking" rather than "fast calculation" by AI. In terms of Inner Thoughts: Worries that AI may lead to "algorithmic dictatorship" - for example, AI trained on historical data may solidify existing educational gaps (such as long-term low resource allocation recommendations for vulnerable groups), or cause managers to gradually lose their independent thinking ability, ultimately "being led by technology". In terms of Practical Impact: To some extent, it plays a role in "technological correction", such as preventing AI applications that may exacerbate unfairness (such as key class allocation algorithms based solely on performance data), but it may also miss opportunities to improve management efficiency due to excessive exclusion of technology.

4.2 The Framework of AI for Educational Planning and Management Training

The use of AI for educational planning and management is the core direction of digital transformation in education. Its essence is to reconstruct the cognitive mode, motivation mechanism, and behavioral logic of the education system through AI's data analysis, personalized adaptation, dynamic optimization, and other capabilities.

From the perspectives of cognition, motivation, and behavior, the deep impact and practical path of AI on educational planning and management can be clearly presented (see figure 2).

Figure 2: The Framework of AI for Educational Planning and Management Training



4.2.1 Cognitive Dimension: Understanding and Decision Logic of Reconstructing Educational Issues

1. Information acquisition: from "local experience" to "full data perception"

In traditional education management, managers' cognition relies on sampling data (such as regular reports, individual surveys) or accumulated experience, which can easily be limited by incomplete information or subjective bias. AI expands cognitive breadth and depth through the following three ways.

(1) Full scenario data integration: AI can integrate multiple sources of data, such as student attendance, teacher preparation, parent feedback, and school facility utilization, from enrollment systems, teaching management systems, resource platforms, and public opinion data, forming a "comprehensive picture of the education ecosystem". For example, managers can use AI to real-time grasp the specific shortcomings of weak schools in the region (such as imbalanced teacher structure rather than hardware shortage), rather than relying on year-end summary reports.

(2) Implicit problem identification: AI uses algorithms to mine data associations and reveal patterns that have been overlooked in traditional cognition. For example, a school district manager discovered through AI analysis that there is a negative correlation between students' after-school care time and their family's economic level, and thus recognized the necessity of "tilting after-school service resources towards low-income families", which is difficult to detect solely based on experience.

I can keenly perceive the differences and similarities between different cultures.

2. Decision logic: from "experience driven" to "data evidence dual wheel support"

The decision-making cognition of managers no longer relies solely on "brainstorming" or "routine continuation", but is based on objective evidence and logical deduction provided by AI.

(1) Quantitative cognition of causal relationships: AI can identify the associations between educational variables through regression analysis and machine learning models (such as the correlation between teacher training duration and classroom interaction quality, and the threshold relationship between per capita book ownership and reading ability), helping managers understand the specific logic of "resource input education output". For example, AI has found that the 'frequency of teaching and research participation' of a subject teacher has a much greater impact on student performance than 'teaching experience', and managers will reevaluate the 'core indicators of teacher professional development'.

(2) Proactive cognition of risk warning: AI uses trend prediction models to shift managers' cognition from "post response" to "pre prevention". For example, based on the risk factors of student dropout, such as continuous

absenteeism, sudden drop in grades, and family change records, AI alerts managers in advance of potential dropout groups, making them aware of the urgency of the problem rather than waiting for dropout to occur before dealing with it.

3. Recognition of Educational Laws: From "Abstract Judgment" to "Fine-tuned Law Mining"

AI helps managers penetrate the surface of educational phenomena and understand more fundamental laws.

(1) Refinement of the understanding of "educational equity": In traditional cognition, "educational equity" may be simplified as "equal hardware resources", but AI analyzes the differences in learning paths among different groups of students (such as the online learning participation of left behind children and the accessibility of resources for special education students), allowing managers to recognize that "equity requires precise matching of individual needs" (such as configuring exclusive online tutoring resources for left behind children).

(2) The cognitive expansion of "education quality": Traditional quality cognition focuses on "achievement rate", while AI can analyze "student core literacy development data" (such as critical thinking and cooperation ability assessment results), promoting managers to recognize that "quality needs to go beyond scores and focus on comprehensive development".

4.2.2 Motivation dimension: the driving force and resistance of AI applications

Motivation is the core factor for managers to actively and continuously use AI, shaped by both internal needs and external environment, including both the "driving force" that promotes AI applications and the "resistance" that restricts practice.

1. Enhance Motivation: Efficiency improvement, responsibility fulfillment, and value realization

(1) Efficiency optimization requirements: Education management involves massive affairs such as resource allocation, policy implementation tracking, public opinion response, etc. The automation capability of AI can significantly reduce the workload of managers. For example, AI can automatically generate regional education quality analysis reports (replacing months of manual statistical work), or intelligently classify and handle parental complaints (quickly identifying high-frequency issues), and this practical need for "reducing burden and increasing efficiency" has become the core motivation.

(2) Pressure to fulfill responsibility: Education managers need to be responsible for the quality, fairness, and safety of education, and AI is the "technical guarantee" to fulfill their responsibilities. For example, policies require "precise assistance to weak schools", and AI can use data to identify the schools that need the most support and specific gaps (such as faculty and equipment), helping managers avoid accountability risks of "inadequate assistance". This "compliance and performance" motivation drives them to actively use AI.

(3) The pursuit of educational value: The intrinsic motivation of excellent managers is to "improve the quality of education", and AI provides them with new tools to achieve their goals. For example, managers hope to "narrow the education gap between urban and rural areas", and AI analyzes the differences in teaching resources between urban and rural areas (such as the sharing rate of high-quality courses and teacher training opportunities) to provide practical optimization solutions. This sense of value of "achieving educational ideals through technology" strengthens the motivation for use.

2. Obstacle motivation: lack of trust, insufficient ability, and environmental constraints

(1) Doubts about trust in AI: The "black box" nature of AI output (such as opaque algorithm logic) may lead managers to question the reliability of results. For example, when the "teacher deployment plan" recommended by AI conflicts with the manager's experience judgment, concerns about "algorithm bias" (such as ignoring teacher family factors) will weaken the motivation to use it.

(2) Digital literacy threshold: AI applications require managers to have basic data thinking and technical understanding abilities (such as understanding AI reports and adjusting model parameters). If managers lack relevant training, the frustration of "not knowing how to use, not using well" will reduce motivation.

(3) Resource and environmental limitations: The implementation of AI relies on data infrastructure (such as data connectivity and privacy protection technologies) and financial support (such as AI system procurement). If the data in the region is severely fragmented (multiple systems are not interconnected) or the budget is insufficient, the motivation of managers to "try hard but lack the conditions" will naturally be frustrated.

(4) Ambiguous attribution of responsibility: When there are problems with AI decision-making (such as disputes over recommended resource allocation plans), managers may face the challenge of "relying on AI to shirk responsibility", and this "uncertainty of responsibility risk" will inhibit their willingness to actively use AI.

4.2.3 Behavioral dimension: AI driven educational planning and governance practice model

Behavior is the manifestation of cognition and motivation, that is, how managers specifically use AI to carry out planning and governance work. This behavior pattern presents the characteristics of "data-driven,

dynamic adjustment, and human-machine collaboration".

1. Planning process: from "experience planning" to "intelligent deduction"

The core of education planning (such as regional education development planning and three-year school planning) is "goal setting path design resource matching", and AI promotes behavior pattern upgrading.

(1) Precision goal setting: Based on AI analysis of regional education shortcomings (such as through "education health indicators" - dropout rate, teacher turnover rate, equipment utilization rate, etc.), managers will shift their planning goals from "vague slogans" (such as "improving quality") to "quantitative indicators" (such as "reducing rural school teacher turnover rate to below 5% within 3 years").

(2) Scenario based path design: AI simulates the effects of different planning schemes to help managers choose the optimal path. For example, in the "Balanced Planning of Compulsory Education Resources", AI can simulate the costs, effects, and risks of three schemes: "New Schools", "Teacher Rotation", and "Online Resource Sharing" (such as the financial pressure of new schools and the difficulty of implementing teacher rotation), and managers can adjust the planning details based on the simulation results.

(3) Dynamic resource matching: Traditional resource allocation relies on "proportional and even distribution", while AI dynamically adjusts the direction of resource allocation through real-time data (such as student increment and teacher workload in each school). For example, if there is a sudden student transfer wave in a certain semester, AI can quickly calculate the demand for new degrees and push managers to temporarily add corresponding school faculty and equipment resources.

2. Governance process: from "passive response" to "active regulation"

Education governance involves policy implementation, quality monitoring, and risk management, and AI enables managers to be more forward-looking and precise in their behavior.

(1) Full process tracking of policy implementation: Through AI real-time collection of policy implementation data (such as homework duration and off campus training supervision data under the "double reduction" policy), managers can dynamically monitor policy effectiveness. For example, if AI discovers that a school's homework volume is decreasing or increasing (monitored through student terminal data), it can immediately initiate interviews and rectification to avoid the problem from escalating.

(2) Personalized intervention for quality monitoring: AI analyzes classroom teaching and student development data to identify weak quality points and push intervention plans. For example, if AI discovers that the overall "geometry module" of a certain grade's mathematics is weak, managers can promote the development of targeted thematic courses by the teaching and research department, or allocate teachers who are proficient in geometry teaching to carry out cross school teaching and research.

(3) Closed loop risk governance: AI builds a full chain governance behavior of "warning disposal feedback". For example, in response to campus safety risks, AI identifies "signs of campus bullying" (such as specific students being socially isolated or taking multiple leave requests) through monitoring devices and student feedback data. Managers initiate psychological interventions, home school communication, and other measures based on warnings, and track the effectiveness of interventions through AI to form a closed loop.

3. The core transformation of behavioral patterns: from "fighting alone" to "human-machine collaboration"

AI has not replaced the decision-making of managers, but has become a "decision-making partner", driving behavior patterns from "individual led" to "human-machine collaboration".

(1) Managers are responsible for "value judgment and goal calibration": AI provides data and solutions, but the final decision needs to be adjusted by managers based on "non quantitative factors" such as educational ethics and social needs (such as AI recommending the closure of a weak school, but managers need to consider the educational accessibility of surrounding residents and change it to "merger and upgrade").

(2) Managers lead the optimization iteration of AI tools: by providing feedback on issues in AI usage (such as data bias and unreasonable indicators), the technical team is encouraged to adjust the model (such as supplementing "special education student data" and "family education environment variables") to make AI more in line with educational reality.

5. DISCUSSION

The essential difference between the groups of people lies in their understanding of the relationship between technology and education: those who apply AI are more inclined towards "technological collaboration" and believe that AI is a tool to enhance management capabilities; The population who do not use AI chooses to rely on traditional models due to technological barriers, experience preferences, resource limitations, or ideological doubts. It is worth noting that this classification is not an absolute opposition - for example, "idea questioning critics" may support AI for non-decision making work, while "technology driven managers" may also retain manual review in core decisions. The ideal state of educational planning and management should be a balance between "AI empowerment" and "humanistic guidance", rather than a binary choice. Besides, the impact of artificial intelligence on education managers is not an isolated change in a single dimension, but a dynamic process in which the three dimensions of cognition, motivation, and behavior are intertwined and continuously

linked. Through artificial intelligence, the three dimensions form a closely intertwined closed loop, promoting the iterative upgrading of education management models.

Firstly, cognitive deepening is the core prerequisite for activating motivation. In traditional management models, education managers' understanding of resource allocation, teaching quality, and other issues often remains at the level of "fuzzy perception" - for example, knowing that "educational resources in a certain region are scarce", but it is difficult to quantify the "degree of tension", "specific areas of gap", and "underlying causes". Artificial intelligence, through big data analysis, can transform abstract problems into concrete and traceable data evidence. For example, by comparing the "per capita teaching equipment investment", "backbone teacher ratio", and "high-quality course coverage" of different schools through algorithms, it can accurately locate specific schools, disciplines, and even grades with imbalanced resource allocation; By analyzing the correlation between student performance fluctuations and teacher training frequency, this study reveals the underlying contradiction of "insufficient inclination of teacher training resources towards weak disciplines". When managers see these visualized data reports (such as resource gap heat maps and fairness index rankings), their understanding of educational issues shifts from "empirical judgment" to "data confirmation". This deepening of understanding of "knowing the truth is better than knowing the reason" will generate strong motivation for improvement - after all, compared to the vague "feeling unfair", concrete evidence such as "data shows that the number of experimental equipment in A school is only one-third of that in B school, resulting in a 40% difference in student practical class hours" can better stimulate managers' sense of urgency to optimize resource allocation.

Secondly, behavior implementation driven by motivation is the key link between cognition and outcomes. When motivations such as "improving educational equity" and "enhancing management efficiency" are activated, managers will actively use artificial intelligence as a tool to achieve their goals and promote the implementation of specific behaviors. For example, driven by the motivation of "optimizing teacher allocation", managers may use artificial intelligence prediction models to input variables such as the growth trend of student numbers, teacher retirement/mobility data, and subject teaching demand in various schools within the region. AI can generate a "forecast table for teacher shortages in various subjects in the next three years" and develop accurate recruitment and rotation plans based on this; Guided by the goal of "promoting personalized teaching", using AI to analyze students' learning behavior data (such as answering speed, error types, and mastery trajectory of knowledge points), designing differentiated curriculum resource packages for different student groups, and promoting teachers to adjust teaching strategies. This behavior is not simply a "technical application", but a creative use of AI tools by managers based on cognitive judgment. For example, when AI identifies that the online learning participation rate of left behind children is low, managers will not rely solely on the algorithm recommended "add online courses" plan, but will design a composite solution of "AI monitoring+teacher home visits+community resource supply" based on their understanding of the group's "lack of family supervision and insufficient equipment", so that technical tools can serve practical needs.

Thirdly, the result data formed by behavioral feedback will optimize cognition in reverse, completing a dynamic cycle. After the application of artificial intelligence in educational management, its effects (such as changes in academic performance after resource allocation adjustments and student satisfaction with personalized teaching plans) will be recorded in data and analyzed in multiple dimensions through AI systems. These feedback data can verify the accuracy of previous cognition - for example, if the behavior of "increasing information technology equipment in rural schools" is implemented and AI detects a 25% increase in local students' online learning participation rate, it will strengthen the manager's understanding that "resource allocation can effectively narrow the digital divide"; It can also correct cognitive biases - for example, when AI displays "the number of teachers in a certain subject meets the standard but the teaching effect is still poor", managers will realize that "the teacher problem is not only a shortage of quantity, but also a lack of training quality", thus shifting cognition from "supplementing quantity" to "improving quality". More importantly, feedback data will enable managers to form a clearer understanding of the "value boundary of artificial intelligence": they will discover the irreplaceability of AI in data processing, trend prediction, and other aspects, as well as recognize its limitations in understanding educational emotions, handling complex interpersonal relationships, etc., and then more scientifically divide the boundary between "AI assisted" and "human decision-making" in subsequent management, achieving a balance between technological tools and humanistic care.

6. CONCLUSION AND RECOMMENDATION

The AI for Educational Planning and Management Training will prepare educational planners to lead and engage in education policy development, analysis, and change in organizations and settings throughout China and internationally. You also will learn how to scale effective education practices and how to leverage policy in order to expand their reach. The train provides the theoretical frameworks and analytic methods that will enable educational planners to design, implement, and evaluate policies at the global, national, province, institutional, program, and project levels. The dynamic cycle of "cognitive deepening activation motivation, motivation motivation driven behavior implementation, behavior feedback optimization cognition" is essentially a process of collaborative evolution between educational managers and artificial intelligence: managers expand cognitive dimensions and improve action efficiency through technological tools, and the application effects of technological tools in turn shape managers' understanding

of educational laws and technological values, ultimately promoting the transformation of educational management from an "experience driven" to a modern model of "data-driven, human-machine collaboration".

This framework can be seen as a first edition that will need to be updated and revised to take account of changes in future environments. AI reconstructs the cognitive logic of education managers (full data perception, data-driven decision-making), shapes motivational directions (balance of efficiency, responsibility, and value), optimizes behavioral patterns (precise planning, dynamic governance, human-machine collaboration), and promotes the transformation of education management from "experiential" to "scientific". But the effectiveness of this transformation depends on the improvement of managers' digital literacy, the transparency improvement of AI technology, and the deep integration of "technological tools" and "educational essence" - ultimately, AI should serve the core goal of "educating people" rather than the stacking of technology itself.

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