Ecological System Construction Path of Intelligent Organization Construction Integrating Artificial Intelligence Technology

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Keywords: Artificial Intelligence; Intelligent Organization Construction; Ecosystem; Digital Governance; Technology Empowerment

Abstract: This article discusses how to empower the whole process of organizational construction through artificial intelligence (AI) technology, and promote the transformation of traditional organizational construction into an ecological model of data-driven, intelligent decision-making and collaborative governance. This article combs the theoretical basis of the integration of intelligent organization construction and AI, and analyzes the key technical paths such as data perception, knowledge map, intelligent learning, decision support and interactive service. Building a smart organization and building an ecosystem is not only a technological upgrade, but also a deep-seated change in the logic of organizational operation. Only by realizing the coordinated evolution of technology, system and people can the accuracy, responsiveness and sustainability of organizational construction be truly improved. In the future, the development of intelligent organization construction should avoid the tendency of "emphasizing technology over governance", adhere to the unity of political guidance and technical rationality, and ensure that intelligence serves the fundamental goal of organization construction.

1. Introduction

Since entering the new era, China has continuously deepened its own construction, and clearly put forward the overall layout of promoting organizational operation, ideological guidance, system improvement and work style construction under the guidance of organizational construction. In this context, how to improve the scientific, standardized and intelligent level of organizational construction with the help of modern information technology has become an important issue for organizations at all levels. With the rapid development of emerging technologies such as big data, cloud computing, Internet of Things and AI, the digital transformation in various fields of society is deepening, and the organizational construction work is gradually evolving from the traditional organizational mobilization mode to the direction of intelligence, platform and precision [1]. Especially in the case of increasingly complex grass-roots governance, large-scale and widely distributed members, the traditional organizational construction model has exposed certain limitations in terms of information transmission efficiency, organizational management fineness and members' enthusiasm for participation [2].

In recent years, various localities have made a lot of practical attempts in promoting "Organization Construction in internet plus", and developed various organization construction apps, online learning platforms and organization work management systems. However, most systems still stay at the level of data entry, information release and simple statistics, lacking in-depth mining of data value, and the degree of intelligence is low. AI's breakthroughs in natural language processing, image recognition, machine learning and knowledge mapping provide new tools and ideas for solving complex problems in the field of organizational construction. For example, through the analysis model of members' behavior, we can monitor their ideological tendency, find potential

  DOI: 10.25236/icceme.2025.037

risks, and push customized learning content by intelligent recommendation algorithm to improve the effectiveness [3]. AI is not only a technical tool, but also a change in thinking mode.

In this context, the construction of an ecosystem for smart organizations cannot be supported solely by technological advancements. It is necessary to break free from the limitations of "instrumental" applications and focus on building an open, collaborative, and adaptive ecosystem. The construction path The so-called "ecosystem" refers to an organic whole composed of multiple subjects and elements such as organizations, members, technology platforms, data resources, institutional mechanisms, etc., and dynamic balance and continuous evolution are realized among all parts through data flow, functional complementarity and value creation [4]. This ecological thinking emphasizes the integrity, interaction and development of the system, which is the key to deal with the fragmentation and isolation of the current smart organization construction. From the perspective of system theory, this article discusses how to integrate multiple dimensions such as technology, organization, system and culture with AI as the engine to build an intelligent organization construction ecosystem with the ability of perception, analysis, decision-making and optimization.

2. Theoretical basis of intelligent organization construction and AI integration

In order to deeply understand how AI empowers organizational construction, it is necessary to clarify the essential connotation of intelligent organization construction and explore the logical basis of its integration with AI technology from the theoretical level. This integration is not a simple combination of "technology and application", but a systematic change based on the intersection of organizational governance modernization, information society evolution and intelligent technology development. It involves many theoretical dimensions such as digital governance, organizational intelligence and ecosystem, which together constitute the theoretical support for the intelligent transformation of smart organization construction.

The construction of intelligent organization is essentially the paradigm upgrade of organization construction in the digital environment. It transcends the "electronic office" or "online publishing" in the traditional information stage, and emphasizes data as the core driving force to realize dynamic perception, precise management and intelligent service in the process of organizational construction [5]. The construction of smart organizations covers many links, such as member education, organization management, organization work supervision, mass contact, etc. Through technical means, information barriers can be opened, operational efficiency can be improved, and the responsiveness and cohesion of organizations can be enhanced. In this process, organizational construction is no longer just a top-down instruction transmission, but gradually evolves into an organic system with feedback mechanism, learning ability and collaborative network.

From the perspective of digital governance theory, the digital transformation of government and public organizations emphasizes transparency, participation, coordination and responsiveness. The construction of intelligent organization is an important embodiment of the modernization of internal governance, and its goal is to improve the openness and scientificity of organizational operation through technical means [6]. AI plays the role of "enhanced governance tool" in this process. For example, the semantic analysis of members' ideological reports by using natural language processing technology can help organizations grasp the real ideological trends of grassroots members; Identifying abnormal behavior patterns through machine learning is helpful to find out the risk points of lax organization or discipline in advance.

Organizational intelligence theory provides another perspective for AI to integrate into organizational construction. According to this theory, modern organizations should have the ability of learning, adaptation and decision-making similar to life. An intelligent organization should be able to learn from experience, adjust strategies according to environmental changes, and make reasonable judgments in complex situations [7]. AI can be the technical carrier of this kind of "organizing brain". For example, the forecasting model based on historical data training can help management to provide reference suggestions at key nodes such as general election and cadre selection; Knowledge mapping technology can structure scattered rules and regulations and policy

documents, form a searchable and inferential knowledge network, and improve the consistency and accuracy of policy implementation.

Ecosystem theory also provides important enlightenment for understanding the overall framework of intelligent organization construction. The traditional organizational construction system is often closed and hierarchical, while the construction of intelligent organizations tends to be open, interconnected and self-organized [8]. In this ecology, organizations, individual members, technology platforms, third-party service providers and even the public all become nodes, forming a symbiotic relationship through data flow and functional cooperation. As an "intelligent intermediary" connecting nodes, AI can establish dynamic association between different agents. This ecological operation mechanism makes the organizational construction system have stronger adaptability and evolutionary potential.

3. The technological path of AI empowering organizational construction

The premise of the intelligentization of organizational construction is "having data to rely on". Traditional organizational work data mostly rely on manual reporting, which has some problems such as lag, distortion and fragmentation. Through mobile terminals, online platforms, organizational activity recording systems and other channels, combined with the Internet of Things and behavior log tracking technology, it is possible to automatically collect behavior data such as members' study duration, frequency of participating in organizational life and online communication content [9]. More importantly, with the help of AI-driven data cleaning and fusion algorithm, structured and unstructured data (such as text, voice and operation records) scattered in different systems can be uniformly processed to form a dynamically updated digital portrait of members. Figure 1 shows the evolution path from the traditional organizational environment to the digital ecosystem.

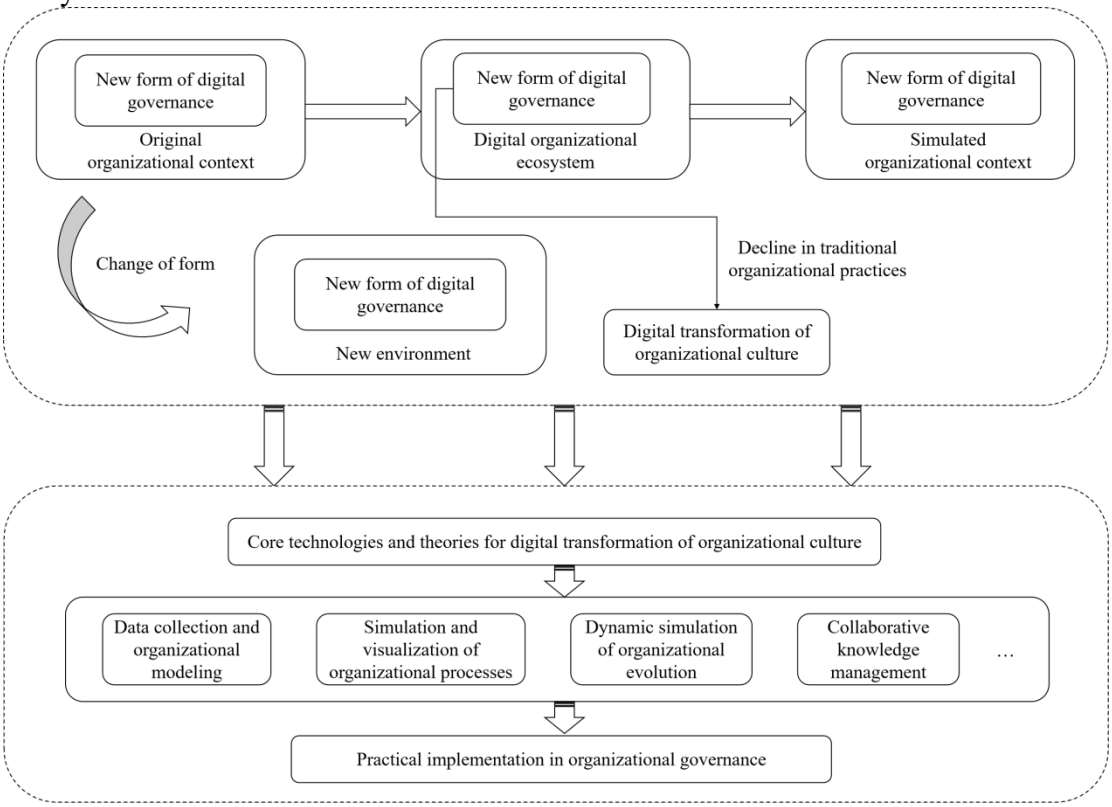

Figure 1 Evolution Path of Organizational Construction

The rules and regulations, policy documents, organizational structure, historical experience and other information in the organization are huge and complicated, so it is often difficult for ordinary members or grass-roots organization workers to find and understand them. The knowledge mapping technology in AI provides a solution for this. Through natural language processing technology, the

articles of association, regulations, important speeches and other texts are semantically analyzed, entities and rules are extracted, and a structured knowledge network of organizational construction is constructed. This atlas can not only support keyword retrieval, but also realize intelligent question answering.

Intelligent analysis and organizational decision support are the most strategic areas of AI in organizational construction. Through the modeling and analysis of member behavior data, the system can identify abnormal patterns, such as members who have not participated in organizational life for a long time, individuals with negative emotional tendencies in ideological reports, and send early warnings to organizations in time. In organizational evaluation, AI can combine attendance records, study scores, mass comments and other multidimensional data to generate a "health index" of the operating status of grass-roots organizations, and assist upper management in resource allocation or rectification guidance. Furthermore, by utilizing reinforcement learning or predictive models, it is possible to predict trends in elections and member development, providing data references for organizational decision-making.

Organizational work is not only management, but also service. Many grass-roots members face the problems of unclear process and untimely response when handling organizational relationship transfer and consulting policy provisions. The introduction of AI customer service can provide 7×24 hours of policy answering service during non-working hours, reducing the burden on organizational cadres. Some advanced platforms also try to integrate speech recognition and multi-round dialogue technology to make the interaction more natural.

4. The construction path of intelligent organization to build ecological system

To build an ecosystem of intelligent organizations integrating AI technology, it is necessary to go beyond simple technology superposition, based on the principles of systematic, collaborative and sustainable development, and formulate a phased and achievable implementation path. The key to the construction of the system lies in the coordinated promotion of top-level design, technical integration, organizational guarantee, pilot promotion and risk prevention and control.

Superior organizations should take the lead in formulating unified development strategies and construction guidelines, promote the introduction of technical standards and data specifications at the national or provincial level, unify data formats, interface protocols and security requirements, and effectively solve the problems of multiple platforms and data fragmentation. The effectiveness of the construction of smart organizations needs to be included in the assessment system, focusing on evaluating the actual application effect to avoid the formalistic tendency of "emphasizing construction but neglecting application".

The construction of a unified intelligent organization should integrate AI engine, data warehouse and identity authentication system, and support organizations at all levels to develop applications on demand through open interfaces. The operation mode of "unified base and graded application" is helpful to realize up-and-down linkage and functional coordination.

The establishment of hierarchical and classified training system is helpful to improve the cadres' understanding and application ability of AI technology. Cultivating a compound talent team of "organizational work+technology" and exploring the establishment of full-time posts or technical advisory teams can provide a solid guarantee for localized operation and maintenance and continuous optimization.

When carrying out pilot work in areas or units with mature basic conditions, we should focus on specific application scenarios (such as mobile member management, intelligent learning recommendation, etc.), accumulate experience through trial and reform, form a replicable model, and then gradually promote it, taking into account the differentiated needs of different levels and types of organizations.

The application boundary of AI must be clearly defined, and it is strictly forbidden to be used in important decision-making links such as evaluation, appointment and dismissal, so as to effectively prevent algorithm bias and "information cocoon room" risk. Strengthen measures such as data encryption, authority control and audit trail, effectively keep the bottom line of data security, and

ensure that the application of technology will not weaken the political and humanistic care characteristics of organizational work.

5. Conclusions

From the dual dimensions of theory and practice, this study discusses the feasibility and realization path of AI technology integrating into the construction of smart organizations. Different from the previous perspective that AI is simply regarded as a tool, this article emphasizes it as a structural force to build a new ecology for organizations. On the technical level, AI has shown remarkable potential in member portrait construction, knowledge management, personalized education and risk early warning, but its effectiveness is highly dependent on data quality, system integration and matching of application scenarios. At present, the practice in some areas has achieved initial results, but it also exposes some problems, such as emphasizing platform over application, emphasizing data over feedback, and emphasizing technology over ethics. It is suggested to strengthen the unification of standards, pay attention to the pilot iteration, improve the safety boundary, and cultivate a compound team with both organizational literacy and digital ability. Only in this way can AI truly become a powerful support to enhance the political and organizational functions of organizations, rather than a superficial "digital decoration". The ultimate goal of the construction of intelligent organization is not to build a cold technical system, but to build a new ecology of organization construction with more temperature, toughness and vitality.

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