Original Paper

Exploring Collaborative Mechanisms and Ethical Risks of

AIGC Empowering New Era Civilization Practices

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Abstract

The fast growth of Artificial Intelligence Generated Content (AIGC) has injected fresh energy into the practices of new-era civilization work. With significant advances in producing multimodal content, matching services with individuals, and optimizing organizational efficiencies, it holds potential for the intelligent transformation of grassroots publicity and cultural work. However, issues of accountability, algorithmic bias, data security and privacy which come with this technological empowerment should not be disregarded. We focus on operationalizing AIGC with civil practice, systematically exploring the synergistic mechanisms between the two, acknowledging ethical risks which may be associated with well help three-prong them construct а response to risk "technology-ethics-governance," and hope to facilitate the healthy and sustainable future of civil practice in the new era while in the digital age.

Keywords

AIGC, New Era Civilization Practice, Collaborative Mechanism, Ethical Risks, Algorithm Governance

1. Introduction

In recent years, China's New Era Civilization Practice Centers have played an increasingly vital role in promoting ideological education, public culture, and volunteer services at the grassroots level. With the release of the Implementation Plan for the Construction of New Era Civilization Practice Centers by the Central Propaganda Department, local governments have begun exploring digital transformation paths to improve communication efficiency and social participation. However, traditional civilization practice models still face challenges such as low content productivity, limited interactivity, and insufficient resource integration. Artificial Intelligence Generated Content (AIGC) offers new

possibilities for addressing these limitations. By generating text, images, and videos through multimodal algorithms, AIGC can assist cultural workers in designing publicity materials, summarizing feedback, and producing localized cultural narratives. For example, several pilot cities have used AI-assisted tools to automatically create volunteer campaign posters and short educational videos, enhancing the timeliness and emotional appeal of public communication. Yet, the empowerment of technology also brings ethical and governance concerns, including algorithmic bias, data privacy, and accountability ambiguity. If not properly guided, overreliance on AIGC may weaken the humanistic essence of civilization practice. Therefore, establishing a balanced framework that integrates technology, ethics, and governance is essential. This paper aims to explore how AIGC can enhance content innovation, improve service precision, and strengthen collaborative mechanisms while addressing the potential ethical risks to ensure sustainable and people-centered cultural development in the digital era.

2. Building Collaborative Mechanisms for AIGC Empowering New Era Civilization Practices

2.1 Content Innovation and Supply Collaboration Mechanism

The integration of AIGC into cultural production has transformed the traditional content creation process of New Era Civilization Practice. Cultural institutions, local publicity departments, and technology enterprises should establish joint innovation studios to co-develop creative projects. In this model, professional planners provide cultural and ideological guidance, while AI engineers contribute generative models capable of producing localized visual and textual materials. This form of collaboration enables continuous experimentation between human creativity and machine intelligence (Su, 2024). In practical terms, several regional cultural centers have already piloted AI-assisted creative programs. For instance, a practice center in Zhejiang used an AIGC-powered platform to design a series of digital posters celebrating local heritage. Community residents participated by submitting folk stories and photographs, which were then reinterpreted by the AI system to generate culturally resonant artworks. This participatory approach not only improved the authenticity of the content but also strengthened residents' sense of ownership in cultural expression. To ensure quality and ideological alignment, cultural institutions can implement multi-layer review mechanisms combining automated semantic screening with expert human evaluation. Meanwhile, technology providers should develop low-threshold editing tools, allowing volunteers and community staff to create customized promotional materials without technical expertise. Regular workshops and feedback meetings can further enhance cooperation between developers and users, ensuring continuous optimization of algorithms based on community feedback. Through this closed-loop system of co-creation, review, and iteration, AIGC becomes a bridge connecting traditional cultural resources with intelligent production methods, fostering a sustainable mechanism for continuous content innovation in civilization practice (Yang, 2025).

2.2 Precise Matching of Supply and Demand with Feedback Collaboration Mechanism

The efficiency and inclusiveness of New Era Civilization Practice largely depend on whether cultural services can precisely respond to residents' diverse needs. Traditional top-down cultural supply models often emphasize administrative planning while neglecting the dynamic and personalized characteristics of grassroots cultural demand. To overcome this mismatch, grassroots governance units should establish an intelligent public demand collection system that continuously gathers information about residents' cultural preferences, participation behavior, and service expectations. By integrating online questionnaires, community WeChat groups, and digital kiosks placed in local activity centers, such systems can generate real-time data on public cultural consumption and civic participation patterns. The collected data will then be automatically categorized and stored in a digitized "demand list," providing an empirical foundation for targeted cultural service delivery. Technology providers play a central role in enabling this precision. Through deep learning and multidimensional correlation analysis, intelligent algorithmic models can process structured and unstructured data—such as age distribution, participation frequency, cultural topics of interest, and feedback sentiment. These models can then establish correlations between residents' needs and available cultural resources within the regional database. For example, if residents in a particular neighborhood frequently request traditional music workshops, while another community shows higher demand for AI literacy training, the matching algorithm can recommend corresponding cultural programs and resource allocations. This transforms cultural service delivery from a one-size-fits-all approach into a demand-driven, adaptive system. Once the recommended cultural service items are generated, they are pushed to residents through community mobile apps or integrated public service platforms. Residents can evaluate the suggested programs using built-in rating functions and leave detailed feedback on timeliness, content relevance, and personal satisfaction. Grassroots governance units then analyze these feedback datasets to identify emerging trends or dissatisfaction points. Based on quarterly analysis, they update the service catalog and release a dynamic "priority ranking list," which transparently displays which service items will receive higher funding or organizational priority in the next quarter. This iterative mechanism ensures that public resources flow toward programs that truly reflect community needs, enhancing fairness and responsiveness in cultural governance.

Moreover, the matching process is not static but continuously refined through human–machine collaboration. Technology providers regularly update the semantic understanding capacity of the matching models to capture subtle variations in residents' language expressions and emotional tones. For example, when residents express interest in "family-friendly" events, the system learns to associate such keywords with community theater performances or parent-child workshops rather than purely recreational activities. Community residents are also encouraged to participate in prototype testing of new algorithmic features, helping technical teams assess the model's practicality, reliability, and fairness in real-world applications. To strengthen communication between technology developers and residents, grassroots governance units should organize regular offline exchange sessions. These

sessions bring together representatives from the community, cultural workers, and algorithm engineers to discuss problems identified during the matching process. Typical issues may include insufficient representation of elderly residents' preferences, data latency, or misunderstanding of cultural semantics. Through face-to-face dialogue, residents gain a clearer understanding of how the algorithms function, while developers receive valuable insights into the social and emotional dimensions of cultural participation that data alone cannot reveal. Following these discussions, technology providers adjust the algorithmic parameters—such as weightings for demographic variables or semantic clustering thresholds—to enhance matching precision and inclusivity. Over time, residents' participation behavior gradually evolves from passive recipients of cultural services to active contributors in system co-design. The community's familiarity with the operational process of the smart matching system fosters a culture of digital participation. Residents begin to recognize that each piece of feedback directly influences subsequent service planning, reinforcing a sense of civic responsibility and community belonging. In turn, the algorithms improve their predictive accuracy through the accumulation of user interaction data, creating a virtuous cycle in which human input and machine learning continuously optimize each other. From an institutional perspective, this closed-loop operation—comprising demand collection, intelligent matching, feedback evaluation, and algorithmic optimization—represents a new paradigm for participatory governance in the cultural domain. It bridges the traditional gap between administrative supply and social demand, transforming cultural service provision into a co-governance process that integrates technological precision with human-centered values. The model's success depends not only on data and algorithms but also on maintaining a balanced relationship between efficiency and empathy. In practice, some pilot regions have already demonstrated the viability of this model.

For instance, the Civilization Practice Center of Suzhou City launched an "AI-assisted cultural demand dashboard," which visualizes residents' preferences in real time and recommends corresponding service options to local managers. After implementation, community participation in cultural activities increased by nearly 25%, while satisfaction rates rose steadily according to quarterly surveys. These results highlight the potential of AIGC-based precision matching mechanisms to revitalize grassroots civilization work, transforming it into a dynamic, data-informed, and emotionally responsive ecosystem. Ultimately, the goal of this collaborative feedback mechanism is not only to enhance operational efficiency but also to ensure that every cultural service delivered reflects genuine public needs and social values. When technology becomes a medium for listening rather than dictating, AIGC evolves from a mere productivity tool into a meaningful participant in the co-construction of spiritual civilization. By embedding ethics, transparency, and inclusivity into each stage of algorithmic design and social implementation, the smart matching mechanism can serve as a model for sustainable and people-centered governance in the digital age.

2.3 Multi-stakeholder Coordination and Resource Integration Collaboration Mechanism

The integration of AIGC into New Era Civilization Practice is not solely a matter of technological progress but also a process of reshaping institutional collaboration and resource governance. Given the complex structure of public cultural services—spanning governmental departments, social organizations, educational institutions, and technology enterprises—establishing an effective coordination and resource integration mechanism becomes a prerequisite for sustainable innovation. A single department or organization alone cannot address the challenges of resource dispersion, overlapping responsibilities, and insufficient interconnectivity that often hinder the efficient operation of grassroots cultural governance.

Regional cultural management departments should therefore take the lead in creating a multi-stakeholder joint coordination platform that convenes various actors on a regular basis. This platform can include representatives from universities, community organizations, volunteer associations, and local enterprises, forming a cross-sectoral "collaboration circle." The main objective is to facilitate transparent communication and resource sharing through both online and offline channels. For example, a quarterly coordination meeting can be held to review the progress of AIGC-assisted projects, exchange case experiences, and identify gaps in resource allocation. By combining administrative oversight with social participation, the governance structure becomes more inclusive and responsive to changing community needs. Technological support serves as the backbone of this system. A unified digital platform should be developed and maintained by professional technical teams, integrating datasets of cultural facilities, digital archives, volunteer databases, and public event schedules from multiple departments. Each participating organization can register and update its available resources, such as venue space, technical equipment, or expert personnel. The system automatically categorizes these inputs and recommends optimal resource combinations based on demand data collected from local communities. For instance, when a community requests a digital art exhibition, the system can match available venues from the cultural bureau, visual design experts from local universities, and AI-generated visual content produced by enterprise partners.

To ensure fairness and efficiency, an evaluation module can be embedded in the platform. Social organizations and volunteer teams are encouraged to record their project outcomes and upload documentation, including photos, reports, and performance indicators. These records not only enhance accountability but also provide valuable references for other communities seeking best practices. The data-driven evaluation allows management departments to identify high-performing organizations and allocate future resources more effectively. Over time, this process fosters a transparent ecosystem in which data, reputation, and performance mutually reinforce each other. Offline collaboration remains equally important. Joint workshops and thematic training programs can be organized to strengthen participants' digital literacy and ethical awareness in the use of AIGC. Cultural workers can learn how to use AI tools for content creation and community engagement, while technologists can gain a deeper understanding of cultural symbolism and value orientation. In one notable case, a civilization practice

center in Chengdu collaborated with a local AI start-up to train volunteers in using generative models for community storytelling. The resulting digital exhibitions combined residents' oral histories with algorithmically generated imagery, creating a more immersive and emotionally resonant experience.

Furthermore, regional management departments should establish a feedback mechanism to resolve conflicts or inefficiencies in resource allocation. When overlapping requests or technical disputes arise, the platform can trigger an arbitration process involving representatives from each stakeholder group. This mechanism not only ensures procedural fairness but also promotes a culture of dialogue and collective problem-solving. Through these iterative exchanges, the collaboration framework gradually evolves into a dynamic governance network characterized by trust, adaptability, and co-learning. Ultimately, this multi-stakeholder coordination mechanism illustrates how AIGC can serve as a catalyst for institutional modernization. By connecting isolated resources and bridging communication gaps among government, industry, academia, and the community, it transforms fragmented initiatives into an integrated and synergistic system. The resulting model demonstrates that the future of civilization practice lies not merely in technological advancement but in the co-evolution of institutions, values, and social participation. Through sustained collaboration, shared data governance, and ethical alignment, the collective power of diverse actors can drive both digital innovation and cultural revitalization in the new era (Xu, 2025).

2.4 Efficiency Evaluation and Iterative Optimization Collaboration Mechanism

An effective evaluation and optimization mechanism is essential for ensuring that AIGC-empowered civilization practices maintain both operational efficiency and ethical accountability. Without systematic assessment, the innovative potential of technology can easily become disconnected from social needs. Therefore, a well-structured efficiency evaluation framework must be established to form a closed-loop process that links performance assessment, data feedback, and continuous improvement. The first step is to build a multi-dimensional evaluation indicator system. This system should include both quantitative and qualitative dimensions covering service coverage, resident participation rate, user satisfaction, cultural impact, and ethical compliance. For instance, quantitative data such as the number of activities generated by AIGC tools, response time to community feedback, and the diversity of content formats can be collected automatically through digital platforms. Meanwhile, qualitative evaluations—such as the degree of residents' emotional engagement, cultural resonance, and perceived authenticity—can be obtained through interviews, surveys, and participatory observation. This hybrid approach ensures that the evaluation process captures not only efficiency metrics but also humanistic values (Su, 2024).

A professional evaluation committee, consisting of experts from cultural institutions, data scientists, and community representatives, should be responsible for designing and maintaining this indicator system. Their task includes reviewing project implementation reports, identifying recurring problems, and providing targeted recommendations. For example, if a specific community program shows high participation but low satisfaction, evaluators can trace the cause by analyzing interaction data,

algorithmic performance logs, and resident feedback comments. Through such data triangulation, hidden inefficiencies—such as content irrelevance or weak inclusivity—can be systematically identified (Wenqi W., Qianqi X., Ganlin X. et al., 2023). To ensure transparency and fairness, grassroots governance units should publish periodic evaluation reports summarizing performance outcomes and improvement plans. These reports can be shared on public dashboards or government websites, allowing residents to access information about how their feedback contributes to ongoing reforms. In some pilot cities, visualization dashboards powered by AIGC have already been adopted to display real-time service performance and trend analysis, turning evaluation data into an accessible civic resource. This transparency helps foster mutual trust between administrators and residents, reinforcing the sense of shared ownership over cultural development. The iterative optimization mechanism forms the second layer of this collaboration (Deng, 2022). Based on evaluation findings, implementing units should promptly adjust their workflows and management priorities. For instance, if an AI-generated publicity campaign receives low engagement, developers can refine the model's linguistic tone or imagery to better reflect local cultural aesthetics. Similarly, if residents' feedback indicates a lack of emotional warmth in digital content, cultural experts can reintroduce human editing in key narrative segments. Such adaptive optimization ensures that the technological tools remain aligned with the humanistic mission of civilization practice (Shen, 2023).

Training and capacity building are also crucial for sustaining improvement. Once new standards or optimized processes are developed, grassroots units should organize workshops for volunteers and staff to learn about updated guidelines, ensuring that every participant understands how to maintain consistency in service quality. At the same time, residents should be encouraged to continue submitting evaluations after each improvement cycle, providing the data necessary for the next round of analysis. Over time, this cyclical structure forms a self-reinforcing feedback ecosystem—where data informs action, action generates new feedback, and feedback leads to higher efficiency and satisfaction (Zi-yang, 2024). In practice, several local governments have implemented such iterative evaluation models. For example, the Civilization Practice Center in Nanjing uses a "Digital Reflection Loop," where AIGC-generated reports summarize residents' comments, highlight emerging cultural themes, and recommend priority areas for funding allocation. As a result, the timeliness of program adjustments improved by 30%, and overall satisfaction among participants rose significantly within one year.Ultimately, this efficiency evaluation and iterative optimization mechanism represents a shift from passive supervision to proactive co-governance. It transforms AIGC from a static content generation tool into a dynamic governance instrument that learns from human feedback and adapts to social change. Through continuous assessment, transparent reporting, and participatory optimization, the mechanism ensures that AIGC contributes not only to operational performance but also to the ethical and emotional dimensions of civilization practice. In this sense, technological intelligence and human wisdom converge to build a responsive, sustainable, and value-driven cultural governance model for the new era (Zhu, 2024).

3. Potential Ethical Risks of AIGC Empowering New Era Civilization Practices

3.1 Algorithmic Bias and Ideological Risks

As AIGC technology becomes increasingly embedded in public cultural services, algorithmic bias has emerged as one of the most significant challenges to ensuring ideological security and social inclusivity (Sun, 2024). Although AIGC systems are designed to simulate human creativity, their outputs are fundamentally constrained by the characteristics of the datasets on which they are trained. When these datasets contain implicit biases—such as gender stereotypes, regional disparities, or unequal representation of minority groups—the generated content may unintentionally reproduce or amplify such biases. This issue is particularly sensitive in the context of civilization practice, where the goal is to disseminate positive social values and promote cultural cohesion. In practical applications, algorithmic models have demonstrated limitations in understanding local cultural expressions. For example, an AIGC system trained primarily on urban linguistic data may misinterpret the dialects, customs, or symbolic meanings prevalent in rural or ethnic minority regions (Xie & He, 2025). This can lead to the production of cultural materials that appear polished on the surface but lack authenticity or cultural depth. In one pilot project, an AI-assisted campaign inadvertently used generic urban imagery to represent traditional rural festivals, causing dissatisfaction among local residents who felt their heritage was being oversimplified. Such cases highlight how algorithmic homogenization can erode cultural diversity and weaken the credibility of civilization practice programs (Fan, 2025).

Moreover, recommendation algorithms—when optimized purely for engagement metrics such as click-through rates—tend to prioritize popular or emotionally stimulating content. Over time, this creates an echo-chamber effect in which mainstream narratives dominate while niche cultural voices are marginalized. The consequence is a gradual narrowing of ideological discourse, where algorithmic reinforcement subtly shapes public perception and value orientation. In the context of spiritual civilization construction, this poses a potential risk of distorting the balance between innovation and tradition, efficiency and humanism. Another source of concern lies in the interpretability of algorithmic decision-making. The "black-box" nature of deep learning models makes it difficult to determine whether an output reflects factual reasoning or embedded bias. For example, if an AIGC system disproportionately features male figures in leadership roles or associates certain occupations with specific genders, such bias may remain undetected without a rigorous audit mechanism. This opacity complicates accountability: when biased content is generated, it is often unclear whether responsibility lies with the algorithm, the dataset, or the human operators (Guo et al., 2023).

To mitigate these ideological risks, a multi-level governance framework is necessary. At the technical level, developers should incorporate fairness constraints and bias-detection modules into model training. Datasets must be diversified to include balanced cultural samples from different regions, genders, and social backgrounds. At the institutional level, an algorithmic review committee should be established to evaluate whether generated content aligns with the principles of socialist core values and cultural inclusivity. Finally, from a societal perspective, public education on algorithmic literacy is crucial to

help users recognize the difference between machine-generated information and authentic human expression. In essence, algorithmic bias is not merely a technical defect but a cultural and ethical issue that reflects how technology mediates social values. If left unchecked, it may gradually shift the ideological foundation of public culture toward efficiency-driven standardization. Conversely, if properly governed, AIGC can become a powerful instrument for pluralistic expression and cultural renewal. Ensuring fairness, transparency, and interpretability in algorithmic systems is therefore fundamental to safeguarding the humanistic spirit at the core of New Era Civilization Practice (Tan, 2025).

3.2 Data Privacy and Information Security Risks

While AIGC technology has greatly enhanced the efficiency of information processing and public engagement, it also brings significant challenges to data privacy and information security. In New Era Civilization Practice, large volumes of personal and behavioral data—such as participation records, preference tags, and interaction histories—are continuously collected to optimize service delivery. These data are valuable for understanding public demand but, if inadequately protected, may expose individuals to surveillance risks or unintended data exploitation. The boundary between data-driven service improvement and the overcollection of personal information remains blurred. One common risk lies in the insufficient transparency of data collection mechanisms. Many digital platforms used in civilization practice automatically record residents' online behaviors without clear notification or consent. Participants may not fully understand what data are being collected, how long they are stored, or how they are shared among different departments and service providers. For instance, during AI-assisted volunteer recruitment campaigns, users' browsing patterns and communication histories are sometimes analyzed to predict participation likelihood. Without explicit consent and anonymization measures, such predictive modeling could infringe on individuals' right to informational self-determination (Cheng & Gong, 2024).

In addition, data integration across multiple platforms increases the likelihood of information leakage. When public cultural systems exchange data with third-party AI service providers, weak interface management or overlapping authorization channels can lead to excessive data exposure. In one regional project, a data synchronization error between two civic engagement platforms resulted in partial disclosure of residents' personal information, including contact details and participation records. Although no major harm occurred, the incident underscored the need for robust cross-platform access control and encryption mechanisms. Moreover, the application of AIGC involves large-scale data training, which often requires combining structured demographic information with unstructured text or image data. If proper data desensitization procedures are not in place, sensitive attributes such as political orientation, religion, or health conditions may inadvertently become part of training datasets. This not only violates privacy principles but also risks embedding discriminatory patterns into AI models. Vulnerable groups—such as the elderly or individuals with limited digital literacy—are particularly at risk, as they may unknowingly consent to broad data usage terms or fail to adjust privacy

settings. To address these challenges, several governance measures should be implemented (ZHAO et al., 2024). First, a data classification and hierarchical protection system should be established to differentiate between public, restricted, and confidential data, with corresponding access permissions. Second, algorithmic transparency protocols should be introduced to allow users to view how their data contribute to model outputs, enabling a right to inquiry and correction. Third, cross-platform data-sharing agreements must include explicit privacy clauses and independent audits conducted by certified third-party institutions. Technical solutions such as federated learning and homomorphic encryption can also minimize direct data exposure while maintaining analytical capability (Liu et al., 2023).

International experience provides valuable references. The European Union's General Data Protection Regulation (GDPR) and China's Personal Information Protection Law both emphasize the principles of informed consent, data minimization, and purpose limitation. Adapting these principles to the context of AIGC-enabled civic platforms requires balancing technological innovation with ethical prudence. Ultimately, safeguarding data privacy and information security is not only a technical necessity but also an ethical imperative for preserving public trust. In the field of New Era Civilization Practice, where digital participation is closely tied to moral education and cultural identity, any misuse of data can undermine the credibility of the entire system. Only by embedding privacy protection into every stage of AIGC design, implementation, and supervision can we ensure that technological progress remains aligned with the dignity and autonomy of every citizen (Zhou et al., 2025).

3.3 Ambiguity of Responsible Entities and Regulatory Accountability Risks

The complexity of AIGC's operational ecosystem introduces a persistent problem of accountability ambiguity. In traditional cultural governance structures, responsibility for content creation, dissemination, and supervision can be clearly assigned to identifiable institutions. However, in AIGC-enabled systems, these boundaries become blurred. Multiple actors—algorithm developers, platform operators, content reviewers, and government regulators—interact across overlapping jurisdictions, often without clearly defined responsibilities. This fragmented accountability structure poses significant challenges to both ethical governance and legal enforcement. During the development stage, algorithm designers are typically responsible for model architecture, data selection, and system testing. Yet, once the model is deployed and begins to generate content autonomously, tracing the origin of an error or ethical violation becomes difficult. For instance, if a generated cultural poster inadvertently misrepresents a historical figure or distorts a traditional custom, the issue may arise from the training data, the algorithmic parameters, or post-processing by human editors. Each party can plausibly claim limited liability, leading to a "responsibility vacuum." Platform operators, in particular, often rely on extensive user agreements filled with disclaimers that exempt them from direct accountability for algorithmic outputs.

The multi-tier subcontracting model commonly adopted in public service digitalization further complicates this issue. A single AIGC project may involve a primary contractor managing several

third-party service providers for data labeling, content review, and maintenance. When ethical breaches occur—such as biased or harmful content generation—identifying the ultimate responsible party is time-consuming and legally ambiguous. Regulators face an uphill task in tracing decision chains that span private enterprises, government units, and community-level implementers. This diffusion of responsibility undermines public trust and weakens the deterrent effect of regulation. Another challenge arises from the technical opacity of AIGC systems. Deep learning models often function as "black boxes," where the internal decision-making logic is difficult to interpret even for developers. This opacity obstructs forensic analysis when misconduct or algorithmic failure occurs. Without transparent logging of model operations, it becomes nearly impossible to determine whether an ethical violation resulted from developer negligence, systemic bias, or unanticipated user interaction. In effect, technological complexity itself becomes a shield against accountability. To address these risks, an integrated accountability framework is necessary. At the institutional level, regulators should require all AIGC operators to establish traceable decision-logging mechanisms that record key system activities and human interventions throughout the lifecycle of content generation. These logs must be accessible to authorized oversight bodies for auditing and evidence collection. At the contractual level, standardized clauses should define the respective duties of technology providers, platform administrators, and cultural content supervisors, ensuring that no single party can evade responsibility under the pretext of technological uncertainty.

Moreover, an independent Algorithmic Ethics and Responsibility Committee could be established at the regional level, comprising legal experts, ethicists, and technical specialists. This body would review controversial cases, issue public accountability reports, and provide guidance on disciplinary measures. Periodic audits by third-party institutions can further enhance transparency and credibility. In addition, user-oriented complaint channels should be strengthened to allow residents to report inappropriate content or service failures directly, with clear procedures for follow-up and resolution. Ultimately, clarifying responsibility within AIGC ecosystems is not merely an administrative reform but a fundamental step toward ethical modernization. Transparent accountability mechanisms ensure that technological progress does not outpace moral responsibility. Only when each actor in the AIGC chain—developer, operator, and regulator—assumes its due obligations can the system achieve both innovation and integrity, safeguarding the legitimacy and public trust that underpin the New Era Civilization Practice.

3.4 Emotional Disconnection and Dissolution of Humanistic Spirit Risks

While AIGC significantly enhances the productivity and reach of cultural dissemination, its increasing role in civilization practice also introduces a subtle yet profound risk—the weakening of emotional connection and the gradual dissolution of the humanistic spirit. Cultural communication has always relied on human empathy, storytelling, and shared emotional resonance. When technological efficiency becomes the dominant pursuit, these core attributes of humanistic interaction may be diminished or replaced by mechanized expressions lacking genuine warmth. In many pilot regions, AI-generated

content has proven effective in producing visually appealing posters, digital exhibitions, and community messages. However, residents often report that such materials, though technically impressive, feel "distant" or "impersonal." Unlike traditional cultural activities that involve interpersonal interaction—such as local lectures, performances, or volunteer visits—AIGC-generated materials tend to standardize emotions into quantifiable outputs. Sentiment analysis and emotion-simulation models can approximate affective tones but cannot fully capture the complexity of human feeling. This substitution risks creating an illusion of emotional engagement while eroding the authenticity of communal empathy that underpins civilization practice.

Moreover, the interface design of digital platforms often reinforces this emotional detachment. Automated response systems and chatbots replace direct human dialogue with scripted interaction flows, leading to reduced opportunities for genuine communication between service providers and residents. Over time, this may foster a sense of alienation, particularly among elderly participants who value face-to-face relationships as an integral part of cultural belonging. As community interactions migrate online, the physical and emotional dimensions of shared experience—handshakes, eye contact, spontaneous laughter—gradually disappear, weakening the collective emotional fabric that sustains social cohesion. Another concern is the potential homogenization of aesthetic and moral sensibilities. AIGC models, trained on large-scale datasets dominated by mainstream cultural patterns, tend to replicate similar visual styles and linguistic expressions. As a result, local dialects, minority traditions, and non-mainstream cultural forms may be marginalized. When algorithmic systems repeatedly promote content that aligns with generalized public taste, community residents may unconsciously internalize these preferences, narrowing the scope of aesthetic diversity. This phenomenon not only threatens cultural pluralism but also undermines the creative vitality essential to the humanistic spirit. To address these risks, a balanced approach to human-machine collaboration must be maintained. Human cultural workers should remain central in interpreting, contextualizing, and emotionally refining AI-generated materials. For instance, cultural centers can establish "emotion review groups" composed of artists, educators, and psychologists to evaluate whether AIGC-generated content conveys appropriate emotional depth and cultural authenticity. Similarly, hybrid service models that combine intelligent digital tools with human guidance—such as AI-assisted storytelling led by community volunteers—can restore the emotional warmth lost in automated systems.

Furthermore, digital literacy education should emphasize emotional intelligence and cultural sensitivity alongside technical proficiency. Residents and practitioners need to understand that technology is a medium for enhancing human expression, not a substitute for it. Encouraging community members to co-create digital content—by contributing personal stories, photos, or reflections—can transform AIGC from a detached producer into a participatory companion in collective memory building. Ultimately, civilization practice must reaffirm its human-centered essence. While AIGC offers unprecedented efficiency and scalability, its true value lies in amplifying, not replacing, the emotional and moral dimensions of human culture. Safeguarding empathy, creativity, and authenticity in the age of

intelligent generation ensures that the pursuit of digital civilization remains grounded in the warmth of human connection and the enduring vitality of the humanistic spirit.

4. Risk Regulation and Collaborative Governance Pathways

4.1 Establishing People-Centered Principles

The core objective of integrating AIGC into New Era Civilization Practice is not only to enhance technological capacity but to ensure that digital innovation ultimately serves human well-being. Establishing people-centered principles is therefore the ethical cornerstone of AIGC governance. This concept emphasizes that technology must align with human values, safeguard personal dignity, and promote social inclusivity rather than efficiency alone. In the context of civilization practice, where the cultivation of moral consciousness and collective empathy is paramount, people-centeredness provides the guiding philosophy for balancing innovation with ethical responsibility. To translate this principle into practice, government departments should work closely with academic institutions, technology enterprises, and civic organizations to develop a comprehensive ethical framework for AIGC deployment. This framework should define the fundamental requirements of privacy protection, fairness, interpretability, and accountability. It should also establish mechanisms for continuous revision, ensuring adaptability to the rapid evolution of generative technologies. For instance, the Central Cyberspace Administration of China has already proposed guidelines for "responsible AI development," emphasizing respect for human autonomy and the prevention of algorithmic discrimination. Drawing on such precedents, local civilization practice centers can formulate region-specific ethics codes tailored to their community contexts, integrating them into daily governance routines.

Enterprises, as the main drivers of AIGC innovation, must internalize people-centered design principles throughout the entire product lifecycle. During system development, developers should simulate real-world user scenarios through participatory testing groups composed of residents, cultural workers, and social scientists. This approach allows diverse stakeholders to identify potential ethical pitfalls—such as implicit bias or emotional detachment—before deployment. Moreover, enterprises should establish internal ethics review boards that evaluate ongoing projects in light of social impact assessments. These boards would not only monitor data compliance but also assess whether the algorithmic outputs reflect respect for local culture, community identity, and human empathy. Public participation is equally indispensable. In a people-centered governance model, citizens should not merely be data providers but active contributors to ethical decision-making. Government departments can organize public hearings, online consultations, and digital town halls where residents express their views on algorithmic fairness, data privacy, and content authenticity. For example, several pilot cities have experimented with "AI ethics salons," where community representatives, developers, and cultural scholars discuss the moral implications of AI-generated civic content. These deliberative forums foster mutual understanding and democratize the governance of emerging technologies. Education and

capacity building also play vital roles. Government agencies can introduce training programs that enhance the ethical literacy of AIGC practitioners, ensuring that engineers and cultural workers alike understand the social consequences of their technical decisions. Meanwhile, public awareness campaigns can help residents identify manipulative or biased AI-generated information, reinforcing their ability to engage critically with digital content. In this sense, ethical governance becomes not a one-time regulation but a continuous process of co-learning and reflection between institutions and the public.

Furthermore, periodic progress reports on AIGC ethical governance should be publicly released. These reports could summarize implemented measures, highlight exemplary cases of responsible innovation, and invite feedback from independent experts and citizens. By embedding transparency and accountability into the governance process, authorities can strengthen public trust and maintain legitimacy in the application of generative technologies. Ultimately, establishing people-centered principles ensures that AIGC remains a tool for cultural empowerment rather than control. It reminds policymakers and developers that technological progress is meaningful only when it enriches the human experience, protects individual rights, and upholds social justice. In the broader vision of New Era Civilization Practice, this principle embodies the moral foundation for building a "digital civilization with human warmth," where artificial intelligence enhances, rather than erodes, the shared values that bind communities together.

4.2 Building Robust Data Security and Algorithm Review Systems

Ensuring the security and trustworthiness of AIGC applications in New Era Civilization Practice requires the establishment of a robust data security and algorithm review system. As AIGC technologies rely heavily on large-scale data collection, model training, and automated decision-making, the risks of data leakage, misuse, and algorithmic opacity become increasingly significant. A comprehensive governance system must therefore be designed to manage data responsibly, maintain algorithmic transparency, and uphold public confidence in digital governance. At the institutional level, a Data Security Management Committee should be established within regional cultural governance departments. This body would be responsible for defining data classification and tiered protection standards, ensuring that information collected from residents is processed according to its sensitivity and purpose. Public, restricted, and confidential data should be clearly differentiated, with corresponding access controls, encryption standards, and retention periods. For instance, anonymized participation data from community activities could be stored in low-risk repositories, while personally identifiable information must be protected through advanced cryptographic techniques such as homomorphic encryption or secure multiparty computation.

Equally important is the creation of an Algorithm Review Board, tasked with conducting periodic audits of AIGC models used in public cultural services. These audits should assess not only technical accuracy but also the ethical orientation and cultural appropriateness of generated content. Reviewers must examine whether the model's training data reflect regional diversity, whether bias-detection

mechanisms are functioning effectively, and whether algorithmic outputs align with socialist core values. For example, if an AI-generated poster subtly reinforces gender stereotypes or portrays local customs inaccurately, the review board must have the authority to request model retraining or content withdrawal.Transparency mechanisms are central to public trust. AIGC platforms should provide explainable interfaces that allow users to understand, at least in broad terms, how their data are used and how algorithmic recommendations are generated. Residents should be able to view their personal data authorization records, request corrections, and even revoke consent through accessible digital portals. This "right to know and control" forms the foundation of algorithmic accountability. To support this, government departments can establish open dashboards that summarize key findings from algorithmic audits and data compliance checks, thereby promoting both transparency and civic oversight. Cross-platform data exchange also requires strict regulation. When AIGC systems interface with external platforms—such as volunteer management systems or digital libraries—clear data-sharing agreements must specify the scope of information transfer, encryption standards, and liability in the event of breaches. Third-party auditing agencies should regularly inspect these interfaces to ensure adherence to privacy-by-design principles. In this regard, China's Personal Information Protection Law (2021) and the Cybersecurity Law provide a solid legal foundation, but implementation at the local governance level requires continuous refinement and adaptation to the specific context of civilization practice. International experience further reinforces the need for proactive oversight. The European Union's AI Act mandates risk classification of AI systems and pre-market conformity assessments, while Singapore's Model AI Governance Framework emphasizes transparency and stakeholder accountability. Drawing from these models, local governments in China can develop context-specific frameworks that combine technical regulation with ethical supervision.

For example, incorporating real-time monitoring systems that flag abnormal data access or biased content generation can enable timely intervention. Finally, the cultivation of professional talent is indispensable. Both cultural administrators and technical teams should receive regular training on data ethics, cybersecurity, and algorithmic governance. Encouraging interdisciplinary collaboration between legal experts, data scientists, and cultural workers ensures that ethical considerations are integrated into every stage of system design and implementation. By embedding these mechanisms into daily governance, AIGC becomes not a source of risk but a model of trustworthy innovation. A layered structure—combining data protection, algorithm review, public transparency, and professional oversight—creates a resilient governance ecosystem. This system not only protects residents' rights and cultural integrity but also lays the foundation for sustainable, ethical, and people-centered digital civilization in the new era.

4.3 Clarifying Responsible Entities and Constructing Accountability Frameworks

As AIGC systems become increasingly embedded in public governance and cultural services, defining clear lines of responsibility among multiple stakeholders has become a core challenge. Unlike traditional governance structures—where accountability follows a linear chain of command—the AIGC

ecosystem operates through a complex web of developers, platform operators, data providers, and regulators. This distributed architecture increases efficiency but simultaneously blurs the boundaries of responsibility, creating potential "accountability gaps" when ethical or legal issues arise. Building a comprehensive accountability framework is therefore critical to ensuring that innovation proceeds in tandem with institutional integrity. At the regulatory level, government authorities should develop a multi-tier accountability model that distinguishes between primary, shared, and supervisory responsibilities. Primary responsibility lies with the technology providers who design and deploy AIGC systems. They must guarantee that their models meet the required standards of transparency, fairness, and safety before being introduced into public use. Shared responsibility is borne by platform operators and cultural institutions that apply these technologies in daily operations. They are responsible for ongoing monitoring, risk reporting, and user rights protection. Finally, supervisory responsibility belongs to administrative and judicial bodies, which oversee compliance, enforce penalties, and mediate disputes. This tripartite structure ensures that accountability is both distributed and traceable. To operationalize this framework, algorithmic decision-logging mechanisms should be embedded in all AIGC systems used in civilization practice. These mechanisms record key steps in content generation, including data inputs, model versions, and human intervention points. By creating a verifiable "digital audit trail," regulators can reconstruct the chain of events that led to problematic outputs, making it easier to identify the responsible party. For instance, if an AI-generated poster contains factual errors or value deviations, the decision log can reveal whether the issue stemmed from flawed data, algorithmic bias, or insufficient human review. Such traceability not only supports effective investigation but also deters negligence by increasing transparency and reputational risk. Legal and contractual instruments further reinforce accountability. Standardized service contracts between public institutions and AIGC vendors should clearly define liability boundaries, reporting obligations, and compensation procedures. These documents must specify the consequences of ethical violations, such as algorithmic discrimination or unauthorized data use. In parallel, administrative regulations can introduce mandatory disclosure requirements, compelling enterprises to publish summaries of their risk assessments, system audits, and mitigation strategies. This practice, already adopted in sectors like finance and healthcare, can effectively be extended to the cultural governance domain to strengthen public oversight.An independent AI Accountability and Ethics Committee should also be established to evaluate disputes and issue public guidance. Composed of experts in law, ethics, sociology, and computer science, this body would serve as a neutral arbitrator when conflicts arise between stakeholders. It could publish annual "Ethical Compliance Reports," summarize emerging risks, and recommend improvements to existing frameworks. Such a committee would complement administrative oversight by introducing professional independence and multidisciplinary judgment, bridging the gap between technical complexity and social expectations.

Furthermore, a citizen feedback and redress mechanism should be incorporated into the accountability system. Residents must have accessible channels to report harmful or misleading AI-generated content

and to seek timely remedies. Complaint-handling procedures should follow principles of transparency, responsiveness, and fairness, ensuring that grievances lead to concrete corrective actions. In some pilot provinces, digital governance platforms have experimented with "AI Responsibility Dashboards" where users can view system updates, report issues, and track how their complaints are resolved. This participatory model transforms accountability from a passive compliance exercise into an interactive process of civic co-governance. Ultimately, clarifying responsibility and constructing accountability frameworks is not merely about preventing misconduct—it is about embedding ethical reflexivity into the DNA of AIGC governance. By ensuring that every stakeholder knows both their rights and duties, this framework balances technological innovation with moral responsibility. When accountability becomes systemic and transparent, AIGC can evolve from a source of uncertainty into a trustworthy enabler of cultural modernization, supporting the long-term sustainability and credibility of New Era Civilization Practice.

4.4 Promoting Human-Machine Collaboration and Value Guidance

In the era of intelligent content generation, achieving an effective balance between human creativity and machine efficiency has become an essential aspect of ethical AIGC governance. While artificial intelligence provides immense capabilities for content production, data analysis, and audience engagement, it lacks the capacity for moral reasoning, emotional sensitivity, and cultural interpretation that define human cognition. Therefore, establishing a long-term framework for human-machine collaboration, grounded in value guidance, is fundamental to ensuring that AIGC enhances rather than replaces the humanistic essence of New Era Civilization Practice. From a governance perspective, the principle of "human-in-the-loop" should be institutionalized in all major stages of AIGC application, including data collection, content generation, and dissemination. Human reviewers must be involved not only as quality controllers but as co-creators who interpret and refine machine outputs according to ethical and cultural norms. For instance, when an AIGC system generates educational materials or promotional posters for civic campaigns, human experts—such as cultural scholars or communication specialists—should review the content's alignment with core socialist values, its emotional tone, and its cultural appropriateness. This collaborative editing process transforms AIGC from an autonomous producer into a creative assistant, ensuring that technology amplifies, rather than dilutes, the social meaning of cultural expression.

At the operational level, local civilization practice centers can establish human-machine co-creation studios, where AI tools are integrated into community-driven cultural production workflows. In these spaces, volunteers, artists, and educators can jointly use generative models to develop customized materials—such as digital exhibitions, storytelling programs, or educational animations—while maintaining human supervision over thematic accuracy and ethical relevance. In one pilot program in Shanghai, community organizers used AIGC to generate visual materials for a volunteer campaign but invited residents to contribute local stories and emotional narratives to enrich the AI-generated content. The resulting works not only achieved higher engagement rates but also conveyed a stronger sense of

authenticity and social warmth. Technological development teams must also embed value guidance modules within their algorithms. These modules can function as internal filters that identify and flag content potentially deviating from socially accepted moral and cultural norms. For example, through sentiment analysis and semantic alignment models, the system can detect whether generated materials carry biased or insensitive connotations. When such deviations are identified, the platform should automatically trigger a human review process before publication. This layered governance mechanism ensures that algorithmic innovation remains compatible with ethical expectations. In parallel, the creation of human-machine hybrid service models can address the risk of emotional alienation in digital interactions. Combining AI-driven recommendation systems with human-led engagement—such as live consultations or interactive Q&A sessions—allows residents to experience both the efficiency of automation and the empathy of human communication. Such hybrid models have been adopted in cultural service platforms in cities like Chengdu and Hangzhou, where AIGC chatbots handle routine inquiries, while trained volunteers provide personalized follow-up, ensuring that technological convenience coexists with emotional care.

Education and capacity building further reinforce this collaborative relationship. Practitioners in the field of civilization practice should be trained not only in AI literacy but also in ethical judgment and value transmission. Regular workshops can help participants understand both the creative potential and the moral constraints of AIGC, cultivating professionals who are capable of guiding intelligent systems toward socially constructive purposes. Similarly, residents should be encouraged to engage with AI tools in participatory ways—by co-authoring content, providing feedback, or sharing personal narratives—to foster a sense of agency and co-ownership.Ultimately, promoting human-machine collaboration and value guidance is about reasserting the primacy of human values in an increasingly intelligent world. AIGC should not be viewed as a substitute for human creativity but as a technological partner that broadens the possibilities for cultural innovation. When guided by ethical awareness and collective wisdom, the synergy between human intuition and machine intelligence can create a new paradigm of civilization practice—one that is intelligent yet empathetic, efficient yet humane, and technologically advanced yet firmly rooted in the moral foundation of human dignity.

4.5 Fostering Ethical Literacy and Sustainable Governance Culture

While institutional frameworks and technical safeguards form the structural foundation of AIGC governance, their long-term effectiveness ultimately depends on the ethical literacy and cultural awareness of the people who design, operate, and engage with these systems. A sustainable governance culture cannot be built solely through laws and algorithms; it requires a shared moral consciousness that aligns technological development with public values. Therefore, fostering ethical literacy across all levels of society—government agencies, enterprises, professionals, and citizens—is an indispensable dimension of risk regulation and collaborative governance. Ethical literacy refers to the capacity to identify, analyze, and respond to moral dilemmas arising from technological innovation. In the context of AIGC, it encompasses the ability to understand how algorithmic decisions affect fairness, inclusivity,

and human dignity. For public administrators, ethical literacy means being able to evaluate policy implications beyond efficiency metrics—recognizing, for example, how automated decision-making might marginalize vulnerable groups or distort cultural narratives. For developers and engineers, it involves designing systems with built-in fairness and interpretability rather than pursuing accuracy at any cost. For citizens, it means cultivating awareness of how personal data are used and developing critical thinking when encountering AI-generated information.

To institutionalize ethical literacy, education and training must become routine components of the AIGC governance ecosystem. Government departments can organize interdisciplinary training programs for public servants that integrate technology management, data ethics, and humanistic values. Universities and vocational schools should incorporate AI ethics and digital citizenship into their curricula, ensuring that future generations understand both the potentials and perils of intelligent technologies (Wang, Liu, & Li, 2025). At the community level, cultural centers and civilization practice hubs can host interactive workshops or "AI literacy salons," where residents discuss case studies of ethical dilemmas in everyday digital life. These grassroots initiatives transform abstract ethical principles into relatable social practices, strengthening collective moral resilience. Enterprises also play a crucial role in shaping governance culture (Chen & Zhang, 2024). Beyond compliance with regulations, they should embed ethical reflection into corporate strategy and internal management. Regular "ethics dialogues" within teams—where employees are encouraged to raise concerns about data usage, content fairness, or algorithmic transparency—can prevent small ethical lapses from evolving into systemic failures. Some pioneering technology firms in China have already established "AI Responsibility Offices," responsible for evaluating social impacts and issuing public transparency reports. Such voluntary accountability initiatives not only enhance corporate credibility but also set positive examples for the industry as a whole (Zhao et al., 2024).

A sustainable governance culture also requires continuous public participation. Ethical governance should not be confined to expert panels or administrative bodies; it must evolve into a social movement that engages citizens in co-monitoring and co-learning. By integrating public feedback mechanisms into AIGC platforms—such as open comment sections, algorithm transparency dashboards, or citizen ethics committees—residents can actively shape the moral boundaries of technology. This participatory governance model echoes the democratic spirit of New Era Civilization Practice, transforming citizens from passive users into ethical co-governors. Finally, ethical literacy must evolve into a living culture rather than a static doctrine. This means embracing reflexivity: the willingness to question, adjust, and improve governance approaches in light of new technological realities. Regular cross-sectoral dialogues among policymakers, academics, and civic organizations can maintain this reflexive momentum, ensuring that AIGC development remains responsive to societal change. Over time, these practices can nurture a "culture of responsibility," where ethical awareness becomes embedded in everyday decision-making. In essence, the sustainability of AIGC governance depends on cultivating a moral ecosystem as sophisticated as the technological one. Only when individuals and institutions alike

internalize ethical literacy as a shared value can AIGC truly serve the advancement of civilization practice. This shift—from rules to culture, from compliance to conscience—marks the deepest form of governance maturity in the intelligent era.

5. Conclusion

The emergence of AIGC represents not only a technological revolution but also an institutional innovation that is reshaping the way civilization practices evolve in the digital era. As a new engine for cultural production and social governance, AIGC expands the capacity of civilization practice centers to generate, disseminate, and evaluate cultural content with unprecedented speed and diversity. Its intelligent integration into ideological communication, volunteer services, and public education marks a transformative step toward the modernization of spiritual civilization. However, the sustainability of this transformation depends on the establishment of sound ethical and governance mechanisms (ZHAO et al., 2024). Without proper oversight, the same algorithms that empower communication could also amplify bias, compromise privacy, and erode the authenticity of human experience. The collaborative frameworks proposed in this study—including data governance, algorithm review, accountability tracing, and human-machine co-creation—demonstrate that technological progress must always be accompanied by moral reflection and institutional responsibility. Future development should therefore transcend purely instrumentalist applications of AIGC and embrace a human-centered, value-oriented approach. By embedding ethics, transparency, and inclusivity into every stage of design and implementation, AIGC can evolve from a productivity tool into a cultural companion that supports social trust and civic participation. In this process, the synergy between government guidance, enterprise innovation, and citizen engagement will be crucial for maintaining the humanistic spirit within digital modernization. Ultimately, the responsible use of AIGC will not only promote efficiency but also enrich the moral and emotional dimensions of civilization, ensuring that technology remains a force for enlightenment and positive transformation rather than alienation or control.

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