# Beyond Exchange: The Intrinsic Mechanisms and Practical Pathways of "Time Currency" Reshaping Community Publicness

Shi Mingcui

Yibin University, Yibin, Sichuan, 644000, China

**Abstract:** This study explores the intrinsic mechanisms and practical pathways through which the community innovation practice of "time currency" reshapes community publicness. The research finds that "time currency" is not merely a tool for time-equivalent exchange but a medium imbued with trust, reciprocity, and relational attributes. By quantifying time and facilitating service exchanges, it activates resident participation, reconstructs weak ties within the community, and fosters shared norms and a sense of community identity. The article develops an integrated analytical framework of "relationship reproduction, identity construction, and institutional empowerment" to reveal how "time currency" drives communities from an "atomized" state to "organic solidarity." The study also finds that "time currency" subverts the value standard of a single currency and institutionalizes and visualizes reciprocal behaviors, thereby promoting non-utilitarian community interactions and cultivating a spirit of community under the dual empowerment of technology and value. Based on the broader context of community governance in China, the article proposes two localized practical pathways:"balancing technological integration with humanistic care"and"coordinating formal institutions with informal norms," emphasizing the need to balance instrumental rationality and value rationality in the operation of time and banking to build a sustainable community publicness ecosystem, offering both theoretical references and practical guidance for innovation in community governance.

**Keywords:** Time Currency; Community Publicness; Relationship Reproduction; Social Capital; Community Governance

## 1 Introduction

### 1.1 Research Background and Problem Statement

Contemporary Chinese society is undergoing dual transformative processes of urbanization and digitization. Traditional community bonds based on geography and kinship are undergoing profound deconstruction. The "China Community Governance Development Report 2023" released by the Ministry of Civil Affairs indicates that there are now 118,000 urban communities nationwide, covering over 850 million urban residents. However, community publicness faces unprecedented challenges. Community publicness refers to the capacity and relational state where residents participate in public affairs and construct collective action based on shared interests and values. Signs of its weakening include the prevalence of "not knowing neighbors," community participation apathy, and the fading of social trust. Data from the "Survey on Urban Residents' Community Participation in China" released by the Chinese Academy of Social Sciences in 2022 reveals that only 23.4% of urban residents frequently participate in community public activities, and 67.8% report having no in-depth interactions with their neighbors. This signifies the decline of the community life commons and the loss of public spirit.

Traditional community building often relies on administrative mobilization or material incentives. While effective in the short term, this approach struggles to cultivate intrinsic, long-lasting public participation consciousness. Furthermore, market-oriented property services and individualized lifestyles further simplify community relationships into contractual and exchange-based interactions, lacking deeper emotional and value-based connections. In this context, the emerging community practice of "Time Currency" has garnered attention. Statistics from the China Community Building Association in 2023 show that over 500 communities nationwide have initiated Time Bank pilot projects, covering approximately 3 million residents, with rapid growth. However, existing research mostly treats it merely as a simple labor-time exchange tool, failing to deeply analyze its intrinsic mechanisms for reshaping community publicness. Therefore, this study intends to move beyond the traditional economic exchange perspective to explore how "Time Currency," as a relational medium, facilitates the transformation of communities from "atomization" to "organic solidarity" through the internal mechanisms of relational reproduction, identity construction, and institutional empowerment. It will also propose localized practical methods based on China's community governance environment.

## 1.2 Research Significance and Value Analysis

Research on "Time Currency" within emerging community practices holds significant theoretical and practical value.

In terms of theory, this study constructs an integrated analytical framework of "Relational Reproduction-Identity Construction-Institutional Empowerment," thereby offering a new perspective for understanding the internal mechanisms of community publicness reshaping. Traditional research often views community currencies as singular alternative economic tools. In contrast, this study systematically and deeply analyzes "Time Currency" for the first time from a sociological perspective of publicness reshaping. This shifts its perception beyond being limited to an economic exchange function, repositioning it as an incubator for community social capital and a platform for cultivating public spirit. This theoretical innovation enriches the community governance theory system, provides a new analytical paradigm for community publicness research, and helps deepen our understanding of the patterns of contemporary community relationship reconstruction and public spirit cultivation [1].

In terms of practical value, following China's urbanization rate reaching 66.16% in 2023, issues like indifferent neighborhood relations and insufficient public participation have become increasingly prominent. Statistics from the Ministry of Civil Affairs show that while there are over 430,000 comprehensive service facilities in urban and rural communities nationwide, the actual participation rate of community residents remains low. Therefore, grounded in the context of Chinese community governance, this study proposes localized practical paths emphasizing "Equal Focus on Technological Embedding and Humanistic Care" and "Synergy between Formal Institutions and Informal Norms." It provides concrete and feasible solutions to address current community governance problems like "participation apathy" and "relational atomization." Its research findings can serve as an important reference for governments at all levels in formulating innovative community governance policies, promoting social organizations' community building practices, and guiding grassroots communities in exploring new governance models. This holds significant practical guiding significance for constructing a social governance pattern characterized by co-construction, co-governance, and sharing.

## 1.3 Research Approach and Framework Design

This study adheres to a progressive research approach of "Theoretical Construction-Mechanism Analysis-Path Exploration," constructing a multi-level analytical framework centered on the community publicness reshaping function of "Time Currency." Firstly, based on social capital theory, publicness theory, and social network theory, it clarifies the conceptual connotation and theoretical foundation of "Time Currency" as a relational medium. Then, using the three analytical dimensions of "Relational Reproduction-Identity Construction-Institutional Empowerment," it delves into the internal mechanisms through which "Time Currency" drives communities from atomization towards organic solidarity [2]. Subsequently, connecting with the actual situation of Chinese community governance and practical cases of Time Banks, it employs inductive analysis to summarize localized practical paths such as "Equal Focus on Technological Embedding and

Humanistic Care" and "Synergy between Formal Institutions and Informal Norms." Overall, the framework design emphasizes the bidirectional interaction between theory and practice, focusing on the hierarchical progression from micro–level individual interactions to macro–level community governance. The aim is to provide a systematic theoretical explanation and feasible practical guidance for cultivating community publicness.

## 2 Beyond Exchange: The Theoretical Connotation and Publicness Orientation of Time Currency

### 2.1 Conceptual Definition and Development History of Time Currency

Time Currency is an innovative practice in the fields of community service and social governance. Its conceptual connotation extends far beyond the traditional sense of a time–equivalent exchange tool. So–called Time Currency quantifies the time invested by service providers into "time credits" using time as the unit of measurement. These credits can then be exchanged for services of equivalent duration within the community, constituting a mutual aid exchange system [3]. This definition reveals that the core of Time Currency lies in extracting human labor time from the market value system and establishing a value recognition mechanism based on the equality of time. This allows services of different skill levels and types to receive equal value recognition along the time dimension.

The development process of Time Currency began with the US community currency movement in the 1980s. In 1986, American jurist Edgar Cahn first systematically proposed the concept of "Time Banking" and established the first pilot project in Washington D.C. Following the 2008 financial crisis, the UK vigorously promoted the Time Banking model. By 2019, the UK had over 300 Time Banking projects serving 120,000 people. Japan integrated the Time Banking concept into its "Long–Term Care Insurance System," providing an effective community care model to address an aging society. China started Time Banking practice relatively late but has developed rapidly. After Nanjing established the first official Time Bank in 2018, cities like Beijing, Shanghai, and Guangzhou successively launched Time Banking projects. By 2023, over 50 cities nationwide had established Time Banking service platforms of varying scales, with registered volunteers exceeding 1 million.

**Table 1 Development History and Characteristics of Time Currency**

| Period | Representative Event | Development Characteristics | Scope of Influence |
| --- | --- | --- | --- |
| 1980s | Edgar Cahn (USA) proposes Time Banking concept | Theoretical construction & initial practice | Community mutual aid pilots |
| 2000s | UK government promotes Time Banking policy | Policy support & scaling up | National promotion |
| 2010s | Japan integrates Time Banking into Long–Term Care Insurance | Institutionalization & specialization | Elderly care service system |
| 2018 – Present | Rapid development of Time Banking in China | Digitization & localization | Multi–city pilot promotion |

The theoretical connotation of Time Currency essentially transcends traditional exchange relationships. Traditional market exchange relies on currency as a medium, emphasizes value quantification and comparison, and pursues profit maximization. It is essentially an instrumental rationality–dominated utilitarian relationship. In contrast, Time Currency, based on the principle of time equality, eliminates the influence of skill differences and market pricing on service value. It constructs a value system based on contributed time rather than skill scarcity. This reconstruction of the value system endows Time Currency with the inherent potential to cultivate community publicness. It not only promotes service circulation but also generates elements of social capital such as trust, reciprocity, and identity during the exchange process [4].

## 2.2 Theoretical Foundation and Core Connotation of Time Currency

The theoretical support for the community innovation practice of Time Currency is deeply rooted in the underlying logic of social exchange theory, social network theory, and social capital theory. Social exchange theory posits that interpersonal interaction is calculated based on cost-benefit. However, the Time Currency system differs from pure economic rationality by constructing a new exchange medium imbued with social value. Blau's social exchange theory indicates that social relationships are maintained through reciprocal balance. Time Currency, with its standardized unit of time measurement, provides community members with a quantifiable reciprocity mechanism [5]. Granovetter's embeddedness theory argues that economic actions occur within social relationship networks. Time Currency is thus a typical example of this embeddedness, transforming abstract time resources into socially meaningful relational ties.

The core connotation of time currency is reflected in the balance of its dual attributes: instrumental rationality and value rationality. From an instrumental perspective, it strictly follows a quantitative logic, and its basic formula can be expressed as:

$$Tc = Ts \times R.$$

Here, time currency points are represented by Tc, the duration of service provided is represented by Ts, and the standardized exchange rate coefficient is represented by R. However, the true value of time currency is not confined to this mathematical expression, because in practice, it can activate the relational rationality and emotional investment of community members. Moreover, the time currency system establishes a universal principle of equivalent exchange, thereby eliminating the hierarchical pricing of community services inherent in traditional market value systems and placing professional technical services and emotional companionship services on an equal value footing. This egalitarian pricing mechanism redefines the social value perception of community labor, thereby promoting the development of new social relationships built on contribution rather than capital.

# 3 Local Practice: Path Exploration, Challenges, and Adaptation of Time Currency in Chinese Communities

## 3.1 Development Status and Path Exploration of Time Currency in Chinese Communities

Time Currency practice began in Chinese communities in the 2010s, gradually flourishing under the dual impetus of addressing population aging challenges and innovating community governance. According to Ministry of Civil Affairs statistics, by 2023, over 1,500 communities nationwide had implemented Time Currency projects to varying degrees, covering areas such as elderly care services and community mutual aid. Its development trajectory distinctly reflects a characteristic path of "government guidance, social participation, and technological empowerment." First-tier cities like Beijing, Shanghai, and Nanjing pioneered the introduction of the Time Banking concept into the elderly care service sector. Using methods like government procurement of services and social organization operation, they created mutual aid elderly care platforms for community residents. After 2019, with the deepening application of digital technologies, mobile internet-based Time Currency platforms developed rapidly. Service content expanded from traditional housekeeping and companionship to diverse scenarios like child education, skills training, and cultural entertainment.

The exploration of Time Currency in Chinese communities exhibits distinct localized characteristics. Unlike Western models primarily driven by grassroots civil society organizations, China's Time Currency practice mostly presents a "government-led, multi-stakeholder collaboration" pattern. Government departments provide institutional guarantees and operational foundations through policy support, financial investment, and platform building. Simultaneously, multiple stakeholders including social organizations, property management companies, and volunteer groups participate deeply, forming a relatively complete operational ecosystem.

Technologically, China's Time Currency mostly utilizes digital platforms, employing mobile apps and mini-programs to achieve functions like service matching, time recording, and credit management. This significantly enhances operational efficiency and user experience. This development path, integrating government governance resources, the professional capabilities of social organizations, and the advantages of digital technology, lays a solid foundation for the scaled promotion of Time Currency in Chinese communities. It also provides unique Chinese experience for global community governance innovation practices [5].

### 3.2 Major Challenges in Chinese Community Time Currency Practice

The actual promotion and operation of Time Currency in Chinese communities encounter numerous challenges. These not only limit the sustainable development of Time Banks but also affect their ability to achieve the ideal goal of reshaping community publicness. Based on practical research in multiple pilot cities nationwide, the main challenges currently faced by community Time Currency can be summarized into five core dimensions: institutional safeguards, technological support, cultural adaptation, operational management, and service supply-demand matching.

Regarding institutional safeguards, China currently lacks a unified legal and regulatory system for Time Banks. This leaves local pilot projects without standardized guidance and authoritative guarantees [6]. In terms of technological support, platform system stability, security, and user-friendliness still need improvement, with the issue of elderly users adapting to digital platforms being particularly prominent. Cultural adaptation challenges manifest as difficulties in reconciling traditional mutual aid culture with the modern Time Banking system, alongside some residents' psychological resistance to quantifying mutual aid behaviors. In operational management, common problems include the lack of professional operational teams, insufficient sustainable funding, and imperfect incentive mechanism design [7]. Regarding service supply-demand matching, structural imbalances and the singularity of service types fail to meet residents' diverse needs.

**Table 2 Analysis of Major Challenges in Chinese Community Time Currency Practice**

| Challenge Dimension | Specific Problems | Impact Level | Typical Manifestations |
|---|---|---|---|
| Institutional Safeguards | Lack of laws & regulations | High | Absence of unified standards, insufficient policy support |
| Institutional Safeguards | Imperfect regulatory system | Medium | Difficulty controlling operational risks |
| Technological Support | Platform functional limitations | Medium | Poor user experience, complex operation |
| Technological Support | Digital divide problem | High | Difficulty for elderly groups to participate |
| Cultural Adaptation | Value conflict | Medium | Contradiction between traditional mutual aid and institutionalized quantification |
| Cultural Adaptation | Difficulty building trust | High | Low trust in services provided by strangers |
| Operational Management | Lack of professional talent | High | Absence of professional operational teams |
| Operational Management | Funding sustainability | Medium | High operational costs, unclear profit model |
| Service Supply-Demand | Supply-demand imbalance | Medium | Providers mostly elderly, demanders increasingly younger |

| Challenge Dimension | Specific Problems | Impact Level | Typical Manifestations |
|---|---|---|---|
| Service Supply–Demand | Uneven service quality | Medium | Lack of unified service standards and evaluation systems |

These challenges reflect the complexity involved in translating the ideal vision of Time Currency practice into real–world operation. Therefore, they need to be systematically addressed in future development through diversified paths such as institutional innovation, technological upgrading, cultural cultivation, and management optimization.

### 3.3 Adaptation Strategies and Optimization Recommendations for the Chinese Context

Given the unique context and practical needs of community development in China, a multi–dimensional optimization strategy must be constructed for the localized adaptation of Time Currency. Building on the previous analysis and considering the institutional characteristics and cultural soil of Chinese community governance, the following core adaptation paths can be derived [8].

In terms of institutional design, a hybrid governance model of "government guidance, social participation, and market supplementation" should be established. Time Currency should be integrated into the community points–based management system, organically linking it with existing systems like volunteer service records and civilized family selection to achieve deep integration of formal institutions and informal norms. Furthermore, diversified incentive mechanisms should be constructed, adding compound rewards like honorary recognition and welfare benefits on top of time credits to enhance residents' endogenous motivation for sustained participation.

Establishing a mechanism balancing technological empowerment and humanistic care is crucial. When building digital platforms, optimizing user interface design for elderly users to lower technological barriers is essential to ensure equal participation across age groups. A dual–track operational system combining online recording and offline services should be built. Community workers should provide close guidance to help residents gradually adapt to the new mutual aid model.

Additionally, a risk prevention and control mechanism must be established, setting up supporting systems such as service quality supervision, dispute mediation, and exit guarantees. This ensures that while promoting community harmony, Time Currency does not cause negative impacts due to service disputes or institutional defects, thereby enabling the truly sustainable reshaping of community publicness.

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