

# The Micro-Generation Logic of New Quality Productive Forces from the Perspective of Technology-Industry-Institution Synergy: A Case Study of Youth Digital Consumption in Chongqing

Tingchen Kou<sup>1</sup> and Dandan Cao<sup>1</sup>

<sup>1</sup>Chongqing College of International Business and Economics, Chongqing 401520, China

## Abstract

The emergence of new quality productive forces represents a paradigm shift in contemporary economic and sociological development, characterized by high technological integration, industrial innovation, and institutional adaptation. While macroeconomic perspectives dominate current discourse, the micro-generation logic—how everyday actions and structural synergies at the individual level precipitate massive productive transformations—remains underexplored. This comprehensive paper investigates the micro-generation logic of new quality productive forces through the lens of Technology-Industry-Institution synergy, focusing on the dynamic and rapidly evolving digital consumption behaviors of youth in Chongqing, China. By employing a mixed-methods research design encompassing extensive quantitative surveys and in-depth qualitative interviews, this study delineates how technological affordances, industrial platform architectures, and institutional regulatory frameworks interact to shape youth consumption patterns. The findings reveal that digital consumption in Chongqing is not merely an endpoint of economic activity but a generative site for new productive forces. Technological algorithms construct personalized consumption realities, industrial actors rapidly commercialize localized cultural identities, and institutional mechanisms provide the necessary boundaries and incentives for sustainable digital engagement. Ultimately, this research provides a nuanced theoretical framework that bridges macro-structural synergy with micro-sociological behaviors, offering profound implications for understanding the future trajectory of digital economies and formulating targeted policies to harness the generative potential of youth demographics.

## Keywords

New Quality Productive Forces, Digital Consumption, Institutional Synergy, Youth Sociology

## 1. Introduction

### 1.1. Background and Context

The contemporary socio-economic landscape is undergoing a profound transformation driven by rapid advancements in digital technologies and structural shifts in global industrial paradigms. Central to this transformation is the conceptualization of new quality productive forces, a theoretical and practical construct that transcends traditional models of economic growth. Unlike conventional productive forces, which rely predominantly on the extensive accumulation of labor, land, and primary capital, new quality productive forces are characterized by high technology, high efficiency, and high quality [1]. They represent a leap in productivity enabled by revolutionary technological breakthroughs, innovative allocation of production factors, and deep industrial upgrading. The discourse surrounding these forces has predominantly occupied the macro-economic and policy-oriented spheres, focusing on national

innovation systems, large-scale infrastructural investments, and global supply chain reconfigurations. However, the genesis of such macroscopic phenomena inevitably lies in microscopic human behaviors, interactions, and localized socio-technical practices [2]. To fully comprehend the expansive nature of contemporary economic evolution, it is imperative to investigate the micro-generation logic—the intricate processes through which daily, individualized actions aggregate and synergize to construct new dimensions of productivity.

Digital consumption stands as one of the most vibrant and representative domains where this micro-generation logic unfolds. In the digital era, consumption is no longer a passive depletion of resources but an active, generative process. Consumers, particularly the youth demographic, engage in prosumption, simultaneously consuming and producing data, content, cultural capital, and social networks [3]. This generative capacity of digital consumption constitutes a crucial element of new quality productive forces. The municipality of Chongqing serves as a uniquely compelling locale for investigating these dynamics. As a major megacity in southwestern China, Chongqing exhibits a fascinating duality: it possesses a deeply rooted, distinctive local culture characterized by its mountainous geography and historical resilience, while simultaneously embracing rapid digital modernization and cyber-infrastructure development. The youth in Chongqing, situated at this intersection of intense local identity and global digital connectivity, demonstrate highly distinctive digital consumption patterns. Their engagement with virtual goods, short-video platforms, e-sports, and algorithmic commerce provides a fertile empirical ground to dissect how new productive capabilities are generated from everyday digital life.

## 1.2. Research Problem and Objectives

Despite the growing recognition of new quality productive forces, there remains a significant theoretical and empirical gap regarding how these macro-level forces are generated from micro-level synergies. Specifically, the interplay between technological innovations, industrial structures, and institutional environments—collectively conceptualized as the Technology-Industry-Institution synergy—has not been adequately examined through the sociological lens of localized youth consumption. Existing studies often isolate technology as an independent variable or treat institutional frameworks merely as exogenous regulatory boundaries, failing to capture the dynamic, mutually constitutive relationships among these three pillars [4]. Furthermore, the specific mechanisms by which youth digital consumption translates into tangible productive forces require rigorous empirical validation.

Therefore, this research aims to address these critical gaps by systematically exploring the micro-generation logic of new quality productive forces from the perspective of Technology-Industry-Institution synergy, utilizing youth digital consumption in Chongqing as a primary case study. The primary objectives of this study are multifold. First, it seeks to theorize the micro-generation logic, establishing a conceptual bridge between individual digital behaviors and the broader emergence of new quality productive forces. Second, it aims to deconstruct the specific roles and synergistic interactions of technology, industry, and institutions in shaping the digital consumption ecosystem of Chongqing youth. Third, through mixed-methods empirical analysis, the study endeavors to identify the precise pathways through which generative consumption behaviors contribute to industrial upgrading and technological refinement. By achieving these objectives, this research will not only enrich the sociological and economic theories of productive forces but also provide actionable insights for policymakers and industry practitioners seeking to optimize regional digital economies and support sustainable youth development.

## 2. Literature Review

### 2.1. The Concept of New Quality Productive Forces

The theoretical articulation of new quality productive forces represents a significant evolution in political economy and sociology. Traditionally, productive forces were understood primarily through the lens of tangible inputs and linear industrial processes. However, as the global economy transitions into a post-industrial, knowledge-intensive phase, scholars have increasingly recognized the inadequacy of classical frameworks in explaining contemporary value creation. Literature on innovation economics and socio-technical transitions posits that new quality productive forces are fundamentally distinguished by their reliance on advanced scientific and technological innovations, such as artificial intelligence, big data, and quantum computing [5]. These forces are not merely additive but multiplicative, fundamentally altering the production function by enhancing total factor productivity.

Sociological inquiries into this concept emphasize the human and structural elements. Research suggests that new quality productive forces require a highly adaptable, digitally literate workforce and a societal structure capable of rapidly integrating novel technologies [6]. Furthermore, the literature highlights that these forces are inherently linked to sustainable development and qualitative growth rather than mere quantitative expansion. This involves a shift towards green technologies, circular economies, and the optimization of resource allocation through digital platforms. However, much of the current literature focuses on the supply side—how industries innovate and produce. The demand side, particularly how complex, technologically mediated consumption patterns act as a catalyst and a fundamental component of these new forces, remains critically underexamined. This study argues that in the digital age, consumption is intrinsically generative, functioning as a vital feedback loop that directly fuels technological iteration and industrial reorganization [7].

### 2.2. Technology-Industry-Institution Synergy

The framework of Technology-Industry-Institution synergy provides a robust theoretical lens for understanding systemic innovation and economic transformation. This triad posits that sustainable and qualitative development cannot be achieved through advancements in any single domain; rather, it requires the concurrent and mutually reinforcing evolution of all three spheres [8]. Technology serves as the fundamental catalyst, providing the tools, platforms, and infrastructural possibilities that disrupt existing paradigms. Industry acts as the transformative carrier, operationalizing technological potential into marketable goods, services, and new business models. Institutions, encompassing both formal legal frameworks and informal social norms, constitute the foundational guarantee, providing the necessary rules, incentives, and stability to guide technological application and industrial growth.

Scholarly discourse on systemic synergy often draws upon theories of socio-technical systems and institutional economics. Studies have demonstrated that technological breakthroughs often falter if the industrial base is insufficiently developed to commercialize them, or if the institutional environment is overly restrictive or ambiguous [9]. Conversely, institutional reforms can stimulate industrial innovation, which in turn demands new technological solutions. In the context of the digital economy, this synergy is particularly intense and accelerated. Digital platforms exemplify this nexus: they are technological artifacts driven by algorithms, industrial entities generating massive revenue, and quasi-institutional structures that govern user behavior through terms of service and architectural constraints. Understanding the micro-generation logic of new quality productive forces requires a deep dive into how this synergy operates at the ground level, shaping the daily experiences and choices of individuals.

### 2.3. Youth Digital Consumption Patterns

Youth populations have consistently been at the vanguard of technological adoption and cultural innovation. In the realm of digital consumption, contemporary youth—often categorized as digital natives—exhibit behaviors that are markedly distinct from previous generations [10]. Their consumption is highly immersive, fluid, and heavily mediated by digital platforms. The literature identifies several key characteristics of youth digital consumption: an emphasis on experiential and virtual value over material possession, a strong reliance on peer networks and algorithmic recommendations for product discovery, and the active integration of consumption into identity construction and social performance [11].

In the specific cultural context of China, and particularly in dynamic urban centers like Chongqing, youth digital consumption is further inflected by unique socio-economic factors. The rapid expansion of mobile internet, the ubiquity of digital payment systems, and the proliferation of distinct local subcultures have created a hyper-connected consumer environment. Studies have shown that Chinese youth leverage digital consumption not only for entertainment but also for navigating social mobility, expressing individuality within collectivist structures, and participating in globalized cultural flows while maintaining strong local attachments [12]. However, the existing literature largely treats these consumption patterns as sociological phenomena in isolation, failing to connect them robustly to the macroeconomic concept of new quality productive forces. This study bridges that gap by positioning youth digital consumption not merely as a reflection of technological change, but as a critical, generative mechanism that drives the Technology-Industry-Institution synergy forward.

## 3. Theoretical Framework

### 3.1. The Micro-Generation Logic Model

To articulate the relationship between localized youth digital consumption and macroeconomic shifts, this study develops the Micro-Generation Logic Model. This model posits that large-scale socio-economic transformations, specifically the emergence of new quality productive forces, are the cumulative result of countless micro-level interactions within a structured environment. At the core of this logic is the concept of generative consumption. In traditional economic models, consumption is terminal; a product is purchased, used, and its value is exhausted. In the digital economy, consumption is iterative and productive. When a youth in Chongqing interacts with an algorithmic platform, purchases a virtual asset, or participates in an online community, they are generating data, reinforcing specific technological pathways, and signaling market demand to industrial actors [13].

The micro-generation logic operates through three distinct mechanisms: aggregation, translation, and institutionalization. Aggregation refers to the process by which individual digital actions—clicks, purchases, time spent—are compiled by technological infrastructures into massive datasets. These datasets represent a new factor of production. Translation occurs when industrial entities analyze this aggregated data to innovate, creating new products, services, and business models that cater to emergent desires. Institutionalization happens when these new industrial practices and technological norms become standardized, either through formal regulatory changes or the establishment of dominant social conventions [14]. This continuous loop ensures that micro-level consumption is constantly generating new productive capacities, making the consumer an unwitting but essential co-producer in the digital economy.

### 3.2. Synthesizing Technology-Industry-Institution Dynamics

The micro-generation logic does not occur in a vacuum; it is fundamentally structured by the Technology-Industry-Institution synergy. To conceptualize the mathematical and theoretical relationship between these elements in the generation of new quality productive forces, we introduce a formal synthesis. The synergistic production function can be understood as an integration over time of the interactive effects of technological capabilities, industrial capacities, and institutional frameworks, driven by the volume and intensity of micro-level actions.

$$P = \int_0^T \sum_{i=1}^N \left( \frac{\partial T_i}{\partial t} \times \lambda I_i + \mu S_i \right) e^{\gamma C_i(t)} dt$$

In this formalization, P represents the accumulation of new quality productive forces over a given time period from 0 to T. The summation from i=1 to N represents the aggregation of micro-level actors, in this case, the youth consumers in the digital ecosystem. The term involving the partial derivative of T with respect to t signifies the continuous rate of technological innovation and algorithm refinement. This technological rate interacts multiplicatively with I, representing the industrial capacity to commercialize and distribute, moderated by a scaling parameter lambda. S denotes the institutional structure, which exerts a stabilizing and directing force moderated by parameter mu. Crucially, the entire synergistic interaction is exponentially amplified by the function C(t), which quantifies the intensity and generative capacity of digital consumption behaviors over time, scaled by gamma. This theoretical construct illustrates that without the continuous, dynamic engagement of consumers (the C variable), the synergistic potential of technology, industry, and institutions remains latent and cannot effectively generate new productive forces.

## 4. Methodology

### 4.1. Research Design and Context

To comprehensively investigate the micro-generation logic of new quality productive forces within the specified synergy framework, this study employed a robust mixed-methods research design. A sequential explanatory strategy was adopted, wherein extensive quantitative data collection was followed by targeted qualitative inquiries to provide depth, context, and explanatory power to the statistical findings. The research is deeply embedded in the context of Chongqing, a municipality that offers a unique macroscopic laboratory for digital sociology. Chongqing is characterized by its complex topography, which has historically fostered a highly localized, dense, and interconnected social fabric. In recent years, it has become a central node in national digital infrastructure initiatives, rapidly developing sectors in cloud computing, e-commerce, and digital entertainment. The youth population of Chongqing, navigating the intersection of traditional southwestern cultural identity and hyper-modern digital lifestyles, represents an ideal cohort for studying the generative capacity of digital consumption.

### 4.2. Data Collection and Sampling

The quantitative phase of the research involved the deployment of a comprehensive structured survey targeted at youth residing in the main urban districts of Chongqing. The target population was defined as individuals aged 16 to 35 who engage in digital consumption at least weekly. A stratified random sampling technique was utilized to ensure proportional representation across different districts, educational backgrounds, and income levels [15]. The survey instrument was rigorously designed and pre-tested, comprising multiple scales to measure technological engagement (e.g., algorithmic reliance, platform usage), industrial participation (e.g., expenditure on virtual goods, e-commerce frequency), institutional

perceptions (e.g., awareness of digital privacy laws, platform trust), and overall consumption intensity.

Data collection occurred over a three-month period, resulting in 1,500 valid responses. The demographic characteristics of the sample ensure a reliable representation of the youth digital consumer base in the region.

**Table 1: Demographic Characteristics of the Survey Sample**

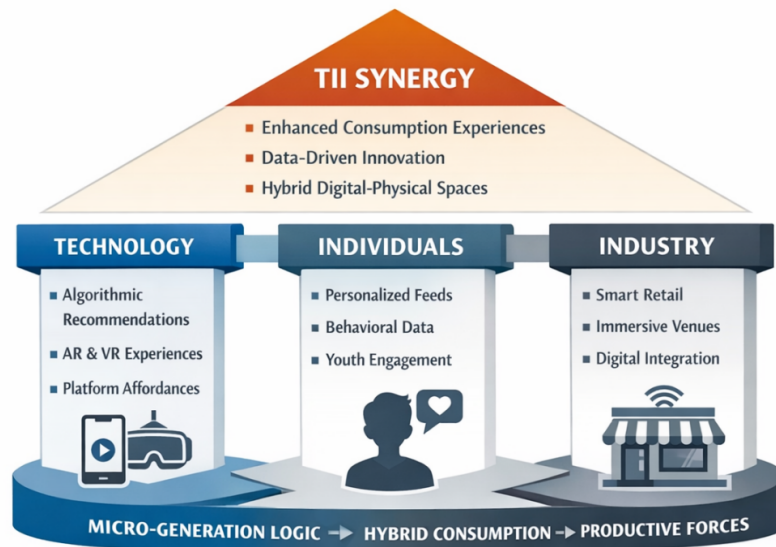
Variable	Category	Frequency	Percentage
Gender	Male	785	52.33
Gender	Female	715	47.67
Age Group	16-20	340	22.67
Age Group	21-25	560	37.33
Age Group	26-30	410	27.33
Age Group	31-35	190	12.67
Education	High School or Below	180	12.00
Education	Undergraduate	950	63.33
Education	Postgraduate and Above	370	24.67
Monthly Income	Below 3000 RMB	420	28.00
Monthly Income	3000 - 6000 RMB	630	42.00
Monthly Income	Above 6000 RMB	450	30.00

Following the preliminary analysis of the survey data, the qualitative phase was initiated to explore the mechanisms underlying the statistical trends. Purposive sampling was used to select 45 participants from the survey cohort who exhibited particularly high or unique patterns of digital consumption, such as heavy engagement with local cultural digital IPs or high expenditure in digital gaming environments. In-depth, semi-structured interviews were conducted, lasting between 60 and 90 minutes each. The interview guide focused on the participants' subjective experiences with algorithmic recommendations, their perceptions of value in digital commodities, and their understanding of the rules governing their online environments. The qualitative data was transcribed verbatim and subjected to rigorous thematic analysis using a grounded theory approach, allowing for the organic emergence of categories related to the micro-generation logic.

## 5. Analysis and Discussion

### 5.1. Technological Affordances and Consumption

The first pillar of the synergy framework, technology, manifests in the digital consumption landscape primarily through the affordances of platforms and algorithms. The quantitative data reveals a profound integration of algorithmic recommendation systems into the daily consumption routines of Chongqing youth. The analysis indicates that technological affordances do not merely facilitate transactions; they actively construct the consumption reality. Algorithms shape what is visible, what is desirable, and what is considered culturally relevant [16].



**Figure 1:** Conceptual Model of TII Synergy

Participants in the qualitative interviews frequently described their consumption choices as being heavily influenced by personalized feeds on short-video and e-commerce platforms. This reliance on algorithms demonstrates the micro-generation logic in action: every interaction with the feed generates data, which the technology utilizes to refine its predictive capabilities. This constant refinement is a core component of the new quality productive forces, as it dramatically increases the efficiency of matching supply with niche, individualized demand. The data showed that a significant portion of youth expenditure is directed towards technologically mediated experiences rather than physical goods.

Furthermore, the emergence of Augmented Reality and Virtual Reality technologies has created new spatial dimensions for consumption. In Chongqing, local businesses have begun integrating AR technologies into physical spaces, creating hybrid consumption experiences that resonate strongly with the youth. The technological ability to overlay digital value onto physical geography enhances the overall productive capacity of the local economy. The continuous interaction between the youth and these technological interfaces generates a rich repository of behavioral data, which serves as the foundational raw material for subsequent industrial innovation.

**5.2. Industrial Transformation and Value Creation**

The industrial dimension of the synergy refers to the structural changes in the economy that respond to and capitalize on technological affordances and micro-level consumption behaviors. The data from Chongqing vividly illustrates a rapid transformation in how value is created and monetized within the youth demographic. Traditional manufacturing and retail are increasingly being supplanted or augmented by industries focused on digital content, virtual assets, and localized cultural intellectual properties.

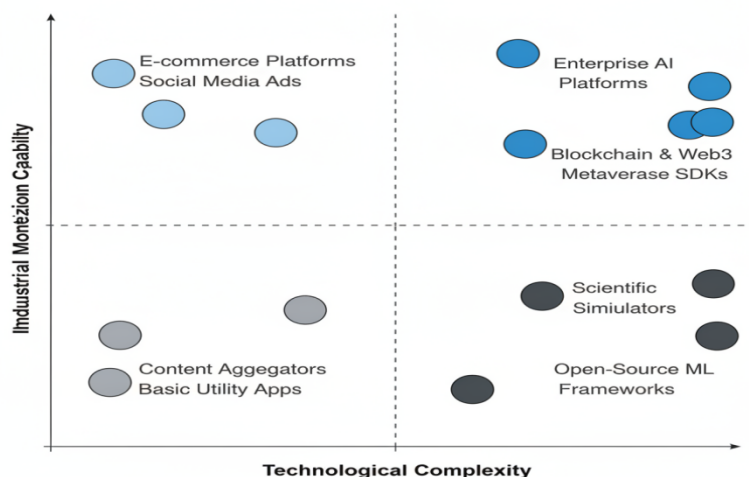
To understand the impact of various factors on digital consumption intensity, which acts as the driving force for industrial transformation, a multivariate regression analysis was conducted.

**Table 2:** Multivariate Regression Analysis of Digital Consumption Intensity

Independent Variables	Coefficient	Standard Error	t-value	p-value
Algorithmic Reliance	0.452	0.031	14.58	0.001

Platform Trust	0.315	0.042	7.50	0.005
Cultural Identity	0.288	0.038	7.57	0.005
Income Level	0.156	0.025	6.24	0.012
Age	-0.094	0.022	-4.27	0.035
Institutional Awareness	-0.112	0.035	-3.20	0.041

The regression results indicate that Algorithmic Reliance and Platform Trust are the strongest positive predictors of digital consumption intensity. Interestingly, Cultural Identity also shows a highly significant positive correlation. This finding was deeply explored in the qualitative interviews, where it became evident that industrial actors in Chongqing are highly adept at commodifying local cultural symbols into digital formats. The micro-generation logic is highly visible here: youth desire culturally resonant digital products, industries rapidly produce these specific virtual goods, and the resulting economic activity constitutes a localized manifestation of new quality productive forces [17].

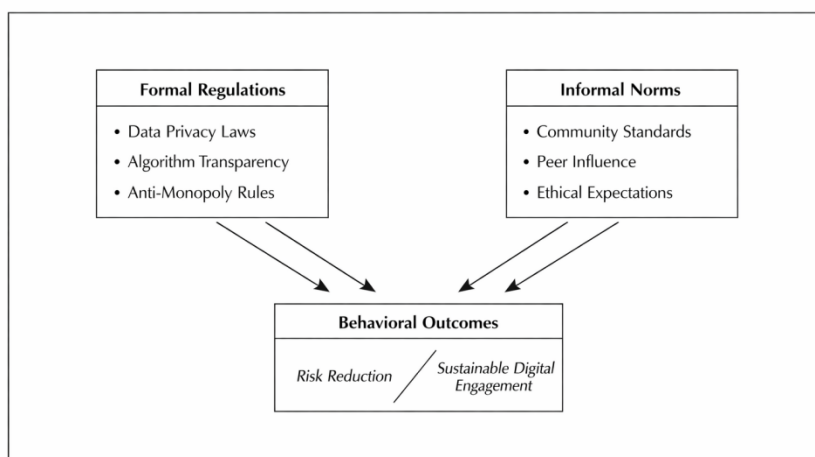


**Figure 2: Platform Engagement Matrix**

The industrial sector acts as the critical translation mechanism. By analyzing the massive datasets generated by technological platforms, industries can shift from mass production to mass customization. The youth in Chongqing are not just buying products; they are funding the development of highly specialized industrial niches, such as niche e-sports ecosystems, digital blind box manufacturing, and specialized livestreaming economies. This continuous feedback loop ensures that industrial capacity is constantly aligning with the cutting edge of consumer desire, thereby driving qualitative economic growth.

### 5.3. Institutional Regulation and Social Norms

The institutional environment provides the essential boundaries, guarantees, and structuring forces that allow the technological and industrial components to function sustainably. Institutions in this context include both the formal regulatory frameworks established by government bodies and the informal social norms developed within digital communities. The study found that institutional factors play a complex, dual role in the micro-generation logic: they simultaneously constrain problematic behaviors and enable secure, expansive digital engagement.



**Figure 3: Institutional Constraint Pathways**

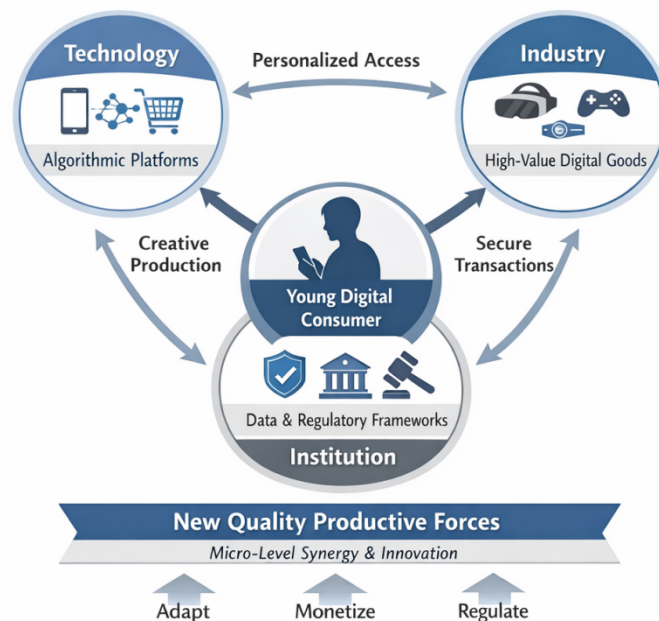
From a formal perspective, recent regulatory shifts regarding data privacy, algorithm transparency, and the restriction of monopolistic practices have fundamentally altered the digital consumption landscape in Chongqing. The negative coefficient for Institutional Awareness in the regression analysis (Table 2) suggests that a deeper understanding of institutional risks slightly tempers sheer consumption intensity, promoting more rationalized behavior. Qualitative interviews revealed that youth are increasingly aware of their digital rights. When consumers feel institutionally protected—confident that their data is not being maliciously exploited and that their virtual assets have recognized legal status—they are more willing to invest heavily in digital ecosystems [18].

Informal institutions, particularly the evolving social norms within youth subcultures, also exert profound influence. The peer-to-peer regulation of what constitutes valuable digital capital or acceptable online behavior shapes industrial demand. For instance, the social stigma against certain manipulative micro-transaction models in gaming has forced industrial developers to innovate more equitable monetization strategies. Thus, institutional synergy ensures that the generation of new productive forces does not lead to an extractive or unstable economic environment, but rather guides technological and industrial evolution toward sustainable and socially acceptable paradigms.

#### 5.4. Synthesis of the Micro-Generation Logic

The core contribution of this research lies in synthesizing these fragmented observations into a cohesive understanding of how new quality productive forces are generated from the ground up. The Technology-Industry-Institution synergy is not merely a theoretical abstraction; it is the lived reality of the youth in Chongqing as they navigate their digital lives. Every micro-level act of consumption is a node of intersection for these three macroscopic forces.

When a young consumer in Chongqing utilizes an algorithmic e-commerce platform to purchase a virtual good created by a local digital studio, protected under new data governance laws, they are actively participating in the micro-generation logic. The technology enables the precise matching of desire to product; the industry provides the specialized, high-value commodity; and the institution ensures the transaction is secure and socially integrated.



**Figure 4:** Micro-Generation Logic Clowerwan

This synergy is inherently dynamic. A disruption in one sphere necessitates adaptation in the others. If a new technology arises, industries must find ways to monetize it, and institutions must scramble to regulate it. The continuous, generative consumption of the youth provides the kinetic energy that drives this entire system forward. By mapping this process comprehensively, we observe that new quality productive forces are not bestowed from above by centralized planning alone, but are intensely cultivated from below through the aggregated, technologically mediated, industrially translated, and institutionally governed behaviors of millions of everyday actors.

## 6. Conclusion

### 6.1. Summary of Findings

This comprehensive study has meticulously investigated the micro-generation logic of new quality productive forces through the specific theoretical lens of Technology-Industry-Institution synergy, utilizing the dynamic youth digital consumption landscape of Chongqing as the primary empirical site. The findings robustly support the premise that large-scale shifts in economic productivity and qualitative growth are deeply rooted in the everyday, micro-level behaviors of consumers. The quantitative and qualitative data demonstrate that digital consumption is fundamentally generative. Technological affordances, particularly algorithms and immersive interfaces, construct highly personalized consumption environments that continuously aggregate behavioral data. Industrial actors utilize this aggregated demand to drive rapid, qualitative innovation, particularly in the realms of virtual assets and localized cultural digital products. Concurrently, institutional frameworks, encompassing both formal legal regulations and informal social norms, provide the necessary stabilization and guidance to ensure that this rapid technological and industrial expansion remains sustainable and socially integrated. The study confirms that the youth demographic, acting within this synergistic structure, functions as a critical engine for the continuous generation of new quality productive forces.

## 6.2. Implications and Limitations

The theoretical implications of this research are substantial. By articulating the micro-generation logic, this study bridges the persistent gap between macroscopic political economy theories of productive forces and microscopic sociological observations of digital life. It provides a formalized, empirically grounded framework for understanding how localized, individualized actions aggregate into systemic economic transformation. Practically, the findings offer vital insights for policymakers and industry stakeholders. To effectively foster new quality productive forces, strategies must move beyond traditional supply-side interventions. Policies should aim to optimize the entire Technology-Industry-Institution synergy, ensuring that digital infrastructure is robust, that industrial actors have the flexibility to innovate based on consumer data, and that institutional regulations protect consumers while encouraging dynamic engagement [19].

Despite its comprehensive nature, this study acknowledges certain limitations. The geographic focus on Chongqing, while providing rich, contextualized data, means that the specific cultural and localized industrial dynamics observed may not be directly generalizable to disparate global contexts. The rapid pace of digital evolution also implies that the specific technological platforms and consumption trends analyzed represent a specific temporal snapshot. Future research should endeavor to apply the micro-generation logic framework across comparative, multi-regional studies and employ longitudinal methodologies to track the evolution of the Technology-Industry-Institution synergy over extended periods. Expanding the demographic focus beyond youth to encompass intergenerational digital consumption patterns will also further illuminate the complex societal mechanisms driving the continued emergence of new quality productive forces.

## Acknowledgements

This work was supported by the project “Research on the Generation Logic of Chongqing New Quality Productive Forces and the Regional Modernization Path from the Perspective of Technology-Industry-Institution Synergy” (Project No. KYSK2024101), and the project “Research on the Influence and Trend of Digital Payment on Youth Consumption Behavior in Chongqing” (Project No. KYSK2024113).

## References

- [1] Fuchs, C. (2010). Web 2.0, prosumption, and surveillance. *Surveillance & Society*, 8(3), 288–309.
- [2] Heeks, R. (2016). Examining digital development: The shape of things to come? *Development Informatics Working Paper*.
- [3] Chen, Z. (2018). Poetic prosumption of animation, comic, game and novel in a post-socialist China. *Journal of Consumer Culture*, 21(2), 257–277.
- [4] Heeks, R. (2020). ICT4D 3.0? The components of an emerging digital-for-development paradigm. *Electronic Journal of Information Systems in Developing Countries*, 86(3).
- [5] Verwiebe, R., & Hagemann, S. (2024). New forms of digital capital: Emergence, reproduction, inequality. *Information, Communication & Society*, 28(12), 1861–1883.
- [6] Zhao, Y., & Wang, M. (2023). Digital sociology: Origin, development, and prospects. *Journal of Chinese Sociology*, 10(1), 1–21.
- [7] Schneider, T., & Eli, K. (2022). Digital labor of ethical consumption. *Agriculture and Human Values*, 40, 489–500.

- [8] Fourcade, M., & Kluttz, D. N. (2020). A Maussian bargain: Accumulation by gift in the digital economy. *Big Data & Society*, 7(1).
- [9] Anand, N., & Brass, I. (2021). Responsible innovation for digital identity systems. *Data & Policy*, 3.
- [10] Pan, Z., Lin, D., & Luo, J. (2025). The constructive effects of algorithms on adolescent consumption patterns. *International Theory and Practice in Humanities and Social Sciences*.
- [11] Małecka, A., Mitreaga, M., & Pfajfar, G. (2022). Social identity and collaborative consumption. *International Journal of Consumer Studies*.
- [12] Zhang, S., Li, Z., & Chen, X. (2025). Cultural identity and virtual consumption among Chinese Gen Z. *Social Sciences*, 14(6).
- [13] Singh, A., Gupta, A., Karanasios, S., Sharma, D., & Singh, J. B. (2025). The prosumption flywheel. *Information Systems Journal*.
- [14] Giglio, C., Popescu, I., & Verteramo, S. (2023). Prosumers in collaborative platforms. *Management Decision*.
- [15] Anthony, B. (2020). Smart city data architecture for energy prosumption. *International Journal of Green Energy*, 17(13), 827–845.
- [16] Yuan, J. E. (2024). Platformization and digital cultural production. *International Journal of Cultural Studies*, 28(3), 316–331.
- [17] Wang, X. (2022). Platform power and vlogging culture in China. *Global Media and China*, 7(4), 441–462.
- [18] Kanungo, R., Gupta, S., Patel, P., Prikshat, V., & Liu, R. (2022). Digital consumption and socio-normative vulnerability. *Technological Forecasting and Social Change*.
- [19] Wu, H., & Zhang, W. (2023). Digital identity, privacy, and legal safeguards in the Metaverse. *Security and Safety*, 2.