Innovative Exploration of Smart City Development in the Era of Converged Media: Postprint

Authors: Liu Yuxuan

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Abstract

In the era of converged media, the development components of smart cities primarily encompass a widely accessible public service system, a precise and refined urban governance system, and a collaborative information resource construction and sharing system. The functions of converged media centers in smart city development involve leveraging media for information mining, delivering high-quality services, and exercising social supervision. Utilizing diverse media resources for smart city construction in the converged media era can yield multiplier effects. However, current smart city development is confronted with issues such as inadequate information resource integration, low levels of smart services, and monolithic construction models, which constrain further advancement to a certain extent. This paper investigates innovative development modalities by analyzing the principal content of smart city construction in the converged media era and existing developmental challenges, aiming to facilitate smart city development and provide insights for future research.

Full Text

Preamble

Title: Innovative Exploration of Smart City Development in the Converged Media Era

Author: Liu Yuxuan (School of Arts, Taiyuan University of Technology, Taiyuan, Shanxi 030024)

Abstract

The construction of smart cities in the converged media era primarily encompasses three core components: an extensive public service system, a precise and refined urban governance system, and an information resource co-construction and sharing system. In smart city development, media convergence centers

serve the functions of information mining through media, providing quality services, and conducting social supervision. Leveraging various media resources for smart city construction in the converged media era can yield multiplier effects. However, current smart city development faces several challenges, including insufficient information resource integration, low levels of smart services, and a singular construction model, which collectively constrain further advancement. This paper analyzes the main components of smart city construction in the converged media era and identifies existing problems in its development process, exploring innovative development approaches to promote smart city construction and provide reference for future research.

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Introduction

Smart cities refer to the intelligent management of urban planning, construction, and services by leveraging new-generation information technologies such as cloud computing, the Internet of Things, big data, and precision algorithms to enhance urban convenience and government service efficiency. Converged media represents the integration of traditional and new media, where both learn from each other' s strengths and achieve mutual development through cooperation. Innovating smart city development in the converged media era can more fully realize smart city construction goals, truly applying technology to "serve the people."

1. Main Components of Smart City Construction in the Converged Media Era

Building smart cities in the converged media era represents a crucial strategic objective that not only determines urban development direction but also significantly impacts citizens' living standards and sense of well-being. Actively promoting smart city construction contributes to the great rejuvenation of the Chinese nation, making it strategically significant in the converged media era. Overall, smart cities aim to enhance government administrative capacity and service levels through new-generation information technologies, thereby promoting urban development, improving people' s livelihoods, and creating an efficient, sustainable, and green new-type city. The construction primarily includes

three systems: public services, precise governance, and information resource co-construction and sharing.

1.1 Extensive Public Service System

The core of smart city construction is "people-oriented," aiming to improve citizens' living standards by creating an efficient and equitable smart public service system. This is achieved primarily by streamlining service processes to enhance government efficiency and capability, thereby increasing public satisfaction with government work. Specifically, smart services are provided in healthcare and employment. In healthcare, hospitals should strengthen information integration to provide one-stop medical services, reducing difficulties in registration, consultation, and treatment while saving patients' time. Hospitals should also improve their information management systems to strengthen management of patients' basic information, reduce misdiagnosis caused by information gaps, and enhance patient satisfaction. In employment, government departments should create specialized employment platforms that provide job seekers with more abundant choices while offering recruiters platforms to post job information, thereby facilitating communication between employers and job seekers and maintaining stability in the employment market.[**?**]

1.2 Precise and Refined Urban Governance System

Developing a precise and refined urban governance system is a crucial component of smart city construction, as it affects not only citizens' daily lives but also the city' s image. Specifically, this system includes urban management, social security, and credit construction. In urban management, governments should strengthen intelligent traffic management by developing specialized apps to present real-time road conditions, helping citizens choose optimal routes and reducing traffic congestion-related problems. In social security, government departments should improve various alarm mechanisms, such as installing alarm buttons in urban blind spots, to meet citizens' emergency needs in different situations. In credit construction, authorities should strengthen citizens' credit tracking, make the credit process transparent, and use online platforms to follow up on the implementation of various public welfare policies, supervising the process to ensure policies and measures are effectively implemented, thereby genuinely improving citizens' living standards.

1.3 Information Resource Co-construction and Sharing System

Building an information resource co-construction and sharing system is essential for smart city construction in the converged media era. The new media era generates massive data as a unique product of smart cities, necessitating an open and shared information platform that integrates life, medical, government service, and other information into a comprehensive "information pool." Using various information analysis technologies to classify, analyze, and share data creates large-scale data sets that provide reliable data support for smart

city construction and enhance urban intelligence levels. Constructing this system requires collecting and aggregating various information resources, achieving full development and effective utilization, and conducting unified management and analysis of information to enable government departments to fully utilize information and improve work efficiency.[?]

2. Functions of Media Convergence Centers in Smart City Development

Under the converged media background, smart city construction is in full swing. Essentially, smart cities aim to enhance urban intelligence levels by improving infrastructure and intelligent applications. Converged media development itself possesses high intelligence and imposes higher requirements on urban infrastructure. Therefore, to fully realize smart city development, cities must leverage the important role of media convergence centers and actively develop the "News +" model. This section discusses three aspects: "News +" cultural content, quality services, and effective supervision.

2.1 "News + Cultural Content" : Information Mining

Smart cities represent a new concept emerging with continuous internet development. Building smart cities requires not only fast network speeds but also massive data and sufficient storage space. The advent of "cloud storage" technology in recent years has provided foundational conditions for smart city construction, accelerating its arrival. However, due to lack of experience, Chinese governments currently face problems in smart city construction, including insufficient information resource integration, low-level smart services, and singular construction models.

Urban users have diverse information needs, requiring both hard news to guide daily life and soft news for relaxation. From the perspective of meeting user needs, "News +" culture is key to media creating quality content—integrating news reporting with local cultural content. First, urban media convergence should emphasize 挖掘 ing its own cultural characteristics and reflecting these in news reporting to stimulate citizens' reading interest, while conducting cultural activities such as "cultural exploration" and "cultural ordering" according to citizens' preferences to provide extensive cultural products and services. Second, urban media convergence should focus on jointly 挖掘 ing cultural elements in surrounding areas to enrich cultural content and meet citizens' growing cultural needs. Third, media convergence should integrate resources from provincial, municipal, and county libraries to promote deep cultural content integration, ultimately achieving transformation from "cultural 挖掘 ing" to "cultural fusion." [?]

2.2 "News + Quality Service" : Providing Convenience

Building smart cities requires developing a "people-oriented"service system based on local characteristics and citizen needs to enhance citizens' sense of happiness through improved convenience. Therefore, urban media convergence should create a "News + quality service" model. First, media convergence should develop channels such as "citizen reporting." Citizens can report various problems encountered in daily life to news media through "reporting," and media should verify the authenticity of the content through interviews and investigations before reporting to attract relevant departments' attention and facilitate problem resolution. Second, urban media convergence should focus on livelihood changes, promptly reflecting citizen groups' needs and claims to solve citizen problems and meet their needs. This is particularly crucial during major emergencies such as epidemics that threaten citizens' safety—media should promptly disclose relevant data and actively report government measures to reduce public panic.

2.3 "News + Effective Supervision" : Social Supervision

China' s news media serves as the "mouthpiece" of the Party and government, bearing the important responsibility of disseminating policies and decisions while also supervising Party and government work to ensure officials serve the people conscientiously and solve their problems, truly becoming "public servants." To effectively fulfill this supervisory role, news media must: First, create resident supervision platforms. Citizens are both the main body of life and the main body supervising government work. Resident supervision platforms can significantly broaden news media' s information sources and better supervise government work. Second, news media should supervise all parties in social life and have the courage to expose any behavior that harms people' s interests. In today' s society, influenced by "money worship," many people compromise with money and engage in behaviors that harm people' s interests, so news media must fully play their supervisory role and expose various illegal activities.[**?**]

3. Problems in Smart City Development in the Converged Media Era

The converged media era provides opportunities for smart city construction, but various problems inevitably exist. Currently, smart city development suffers from insufficient information resource integration, low-level smart services, and singular construction models, which limit further development to some extent.

3.1 Insufficient Information Resource Integration

Insufficient information resource integration in smart city development manifests in several ways. First, although major projects such as big data information service centers and smart city management operation centers have been completed, governments at all levels have acted independently during information construction without emphasizing information resource sharing. This has

led to redundant construction of various information platforms, and lack of cooperation among departments has reduced platform operation efficiency and caused resource waste. Second, infrastructure construction in many livelihood areas has progressed slowly, affecting smart city construction progress. The main purpose of building smart cities is to enhance citizens' convenience and happiness, but currently, many livelihood projects remain unimplemented. For instance, hospitals have not yet established their own media convergence centers, intelligent road management has not been formed, and regional and hierarchical segmentation still exists in administrative work, which hinders smart city construction.

3.2 Low-Level Smart City Services

Low-level smart city government services manifest in several aspects. First, influenced by traditional thinking, government work remains at the paper-based stage without fully leveraging information platforms. The purpose of building government information platforms is to improve government efficiency, simplify government processes, and provide convenience for citizens' lives and work. However, current utilization rates of various government information platforms are low, with most only completing infrastructure construction without fully playing their roles.[**?**] Second, small and medium-sized enterprises in many cities are widely distributed across numerous fields, but lack effective information platform construction internally and have low application rates for various information products, with significant gaps in application at different levels. This increases the difficulty for government departments to build unified information management platforms.

3.3 Singular Smart City Construction Model

A singular construction model is another problem in smart city development in the converged media era. First, major cities building smart cities focus on establishing unified information service platforms to improve work efficiency. While this approach can significantly enhance information resource sharing and government efficiency, they blindly follow trends during platform construction without fully recognizing different regional characteristics or emphasizing cooperation to improve platform operation efficiency, leading to redundant construction problems. Second, some personnel have misconceptions about smart city construction and blindly build government service cloud platforms. While cloud platform construction can promote smart city development, it does not mean cloud platforms are "standard equipment." Blind construction not only fails to improve government service levels but also causes substantial resource waste.[**?**]

4. Innovative Exploration of Smart City Development in the Converged Media Era

The converged media era provides opportunities for smart city construction. Although problems exist in the construction process, they cannot hinder smart city development. Government departments can promote further smart city development by strengthening resource integration to build smart city ecosystems, improving government service levels to build comprehensive guarantee systems, and enriching construction models to improve smart city construction management systems.

4.1 Strengthen Resource Integration and Build Smart City Ecosystems

Strengthening resource integration and building smart city ecosystems are important measures to promote smart city development in the converged media era. First, strengthen government-enterprise cooperation to enhance resource integration. When building information center management platforms, combine government and enterprise forces to alleviate the financial pressure of government-only construction while strengthening information sharing between government and enterprises to improve information resource utilization. Second, strengthen government-society cooperation to increase participation from all social sectors in smart city construction. Building smart cities is not the task of any individual or group but the result of collective social efforts. Strengthening cooperation between government departments and social groups can accelerate smart city construction.

4.2 Improve Government Service Levels and Build Comprehensive Guarantee Systems

Improving government service levels and building comprehensive guarantee systems helps address the problem of low-level smart city services. First, strengthen the cultivation of information technology professionals. Education is crucial for cultivating IT talent. Universities should increase information technology programs to enhance students' technical skills through campus education, thereby providing society with abundant professionals. Meanwhile, various institutions should offer IT training courses to provide substantial talent for China' s smart city construction.[**?**] Second, establish a comprehensive information security guarantee system. When building information management platforms, government departments should strengthen early warning mechanisms for various risks, improve corresponding information protection mechanisms, and enhance platform security through continuous problem identification and resolution.

4.3 Enrich Construction Models and Improve Smart City Construction Management Systems

To promote further smart city development in the converged media era, it is necessary to enrich construction models and improve smart city construction management systems. First, strengthen collaborative sharing to improve information resource utilization. Government departments should enhance cooperation awareness when building smart cities, change the past "acting independently" work model, and achieve information resource co-construction and sharing through mutual cooperation, thereby improving information resource utilization. Second, strengthen urban governance and improve smart city construction management systems. Government departments should enhance intelligent road supervision, improve basic livelihood service levels, and strengthen urban governance to improve smart city construction management systems and promote smart city development.[?]

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Author Biography: Liu Yuxuan (1992-), female, from Taiyuan, Shanxi, holds a master' s degree and works as an assistant at the School of Arts, Taiyuan University of Technology. Research interests: contemporary art.
(Responsible Editor: Zhang Xiaojing**)**

Note: Figure translations are in progress. See original paper for figures.