

The Exploration of the “Internet + Administrative Service” Model Innovation Driven by Big Data

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Abstract: In the digital era, the rise of big data is leading the innovation of the "internet + administrative service" model. The powerful analysis capability of big data not only connects the government and the public, but also deeply opens up the information island, providing unprecedented intelligent support for government services. Its ability to gain in-depth insight into social needs and accurately predict problem trends enables the government to respond more quickly and accurately to people's needs, and to achieve personalized and efficient services. This new model of “internet + administrative service” driven by big data will pave the way for the construction of a more convenient, transparent and intelligent government service system with all-round empowerment, and promote social governance to a higher level.

Keywords: Big data technology; “Internet + administrative services”; Innovative inquiry

Introduction

Big data drives the innovation of the “internet + administrative service” model, and improves the efficiency of government services by strengthening information collection, analysis and application. With the help of big data technology in the field of government affairs, this model realizes the upgrade of personalized and intelligent services. The application of big data technology can fully analyze and mine government information, provide a scientific

basis for government decision-making, and at the same time, optimize the existing service process and improve the public and enterprise experience. Data sharing and interoperability promote collaboration within and outside the government for more efficient governance. With the powerful power of big data, the “internet + administrative service” model has played an important role in improving service quality, strengthening transparency, and promoting digital transformation, laying the foundation for building a smarter and more



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convenient government service system.

1. The Development Status Quo of the “Internet + Administrative Service” Model Driven by Big Data

1.1 Development Status Quo of Construction Content

Under the popularization of big data technology, governments at all levels should actively adopt the “internet + administrative service” model during the development and construction period, significantly improve the level of government services, build basic databases, realize the sharing and exchange of data and information, and standardize the operation in accordance with unified standards. Government departments at all levels need to actively innovate and reform, continuously increase the pilot of “internet + administrative services”, summarize work experience, fully understand the characteristics of the construction form, clarify the data on the amount of maintenance expenditure, protect various data and information, and provide better reference content ^[1].

1.2. Development Status Quo of Performance Assessment

The use of the “internet + administrative service” model for performance evaluation is an inevitable trend of historical development, people can evaluate the service website, and when evaluating the performance of e-government, they can build a communication bridge between their government departments and the public, so as to ensure that the evaluation results have strong objectivity. However, there are still many problems that need to be solved urgently in the implementation of assessment work in China, and it is necessary to make improvements in many aspects according to the actual needs of the people.

2. The Innovative Methodology of the “Internet + Administrative Service” Model Driven by Big Data

2.1 Constant Revision and Adjustment of the Top-level Design

The construction of the “internet + administrative service” platform is a complex and critical task, which requires in-depth consideration of multiple factors to ensure its smooth implementation and fit with national policies. When carrying out top-level design,

it is necessary to fully understand the relationship between various government departments and the relationship with the public’s lifestyle. This requires a comprehensive consideration of the functions of different departments, data flows, and information sharing. When considering the relationship with the public’s lifestyle and traditional culture, the platform design must respect the national Xi and traditions of the public. This includes language, cultural symbols, and the integration of local elements into the service process. With an in-depth understanding of social context and cultural traditions, platforms can better meet the needs of the public and increase user acceptance. Thinking from the perspective of public needs is an important principle for building a successful platform. This requires the platform to be able to provide personalized and convenient services to truly meet the actual needs of the public. A proactive service model is the key, which enables more proactive and intelligent service delivery by proactively understanding user needs and predicting possible service needs. Thinking at the level of strategic overall planning, it is necessary to consider the long-term development of the platform and the ability to respond to future changes. This includes the introduction of advanced technology and the establishment of a flexible platform architecture to adapt to changes in government policies and social developments. At the same time, it is important to ensure the sustainability of the platform so that it can continue to provide high-quality services to the public in the future. Promoting the full integration of ground and online services is a key part of the success of the platform. The platform needs to realize the connection of online and offline services and provide an integrated service experience through reasonable process design and information integration. At the same time, the procedures and classification of online services need to be planned as a whole to ensure the standardization and convenience of services ^[2].

2.2 Realization of the Optimization & Integration and Resource Sharing

Big data technology has prompted the government to integrate the data resources of various departments to form a more comprehensive and integrated information system. Through the optimal integration of data, the government can better understand the needs of

various areas of society and provide targeted services. Based on big data analysis, the government can allocate resources in the fields of urban transportation, medical and health care, and education to better meet the actual needs of the public. In addition, big data technology also provides the government with more accurate forecasting and planning capabilities. Through the analysis of historical and real-time data, the government can better predict the trend of future social development, so as to formulate more scientific policies and plans. This precision not only helps to improve the level of governance of the government, but also better responds to the challenges brought about by social change. The innovation of the “internet + administrative service” model driven by big data, based on resource sharing and optimization and integration, provides the government with a more intelligent and efficient management mode. By making the best use of data, governments can better serve all levels of society, achieve optimal allocation of resources, and promote the development of society as a whole in a more sustainable and healthy direction^[3].

2.3 Promotion of the Comprehensive Application of Advanced Technology

The improvement of big data analysis capabilities enables the government to understand the changing trends of society and the needs of the people more comprehensively. By monitoring and analyzing social data in real time, governments can adjust their service strategies in a timely manner and respond more flexibly to complex situations. The intelligent application of big data provides a more accurate and personalized solution for government services. Through deep Xi and machine Xi algorithms, the government can provide customized services for citizens and enterprises according to individual differences, improving the proximity and satisfaction of services. The intelligent recommendation system can provide users with personalized government information and service suggestions according to individual needs. The comprehensive application of big data technology also helps to improve the scientific nature of government decision-making. Through the analysis of historical and real-time data, the government can better predict social development trends and formulate more scientific policies and plans. This will help improve the

effectiveness of government governance and promote the sustainable development of society. In the process of promoting the comprehensive application of big data technology, the government needs to pay attention to issues such as data privacy and security, and establish a sound system of laws and regulations to ensure the legal, fair and safe use of big data. Through the comprehensive application of big data technology, the government will better realize the innovation of the “internet + administrative service” model and provide more efficient and intelligent services for citizens and enterprises^[4].

2.4 Advanced Technology Promoting Information Exchange

The innovative approach of the “internet + administrative service” model driven by big data is particularly important in promoting information exchange with advanced technology and strengthening the connection between various departments. Big data technology provides efficient data management and analysis tools, enabling governments to integrate multi-source heterogeneous data and achieve efficient information exchange. By establishing a data sharing platform and standards, departments can more easily obtain the information they need each other, avoid the existence of information silos, and achieve comprehensive information sharing. The application of advanced technologies such as artificial intelligence, machine learning, Xi, etc., in the context of big data, enables governments to better analyze and understand data to make more scientific decisions. Through intelligent data processing, the government can gain more accurate insight into social needs, optimize resource allocation, and improve service quality. This technology-driven innovation not only accelerates the efficiency of government services, but also provides the government with a more forward-looking governance tool. In addition, the use of big data technology has also strengthened the links between various departments. By establishing a cross-departmental information sharing mechanism, government departments can work more collaboratively and form synergies. For example, cross-analysis of data from public security, medical care, social security and other departments can better serve social security and health management. This linkage strengthens the government’s ability to work together

in response to complex social problems, and improves the overall level of governance^[5].

2.5 Active Addition of Service Assistant Function

A large part of the reason why the vast majority of the public does not choose to use the “internet + administrative service” method in their daily life is that the public has less understanding of the relevant technical models and does not know that there are such convenient service procedures in the network environment. Therefore, it is extremely important to increase the frequency of use of “internet + administrative services”, and to improve the promotion of relevant information, so that the public can more clearly feel that this kind of system can significantly improve the efficiency of work. There is also a part of the public that although this kind of service has a high degree of convenience, the services provided are relatively limited, and there are still many imperfections in the service work. Many online application windows are actually inaccessible, the description of the application is not detailed and specific, and there is a lack of detailed and specific forms to answer the content in detail, or you can enter keywords in the search bar but to no avail. At the same time, many members of the public believe that the network operation mode is more complicated, and it is difficult to find the service module they need in a short time. When this situation is not faced, it is necessary to do a good job in guiding procedures during the construction of the “internet + administrative service” model, and add service assistants to help the public answer questions and solve doubts, do a good job in guiding the business, and successfully find solutions in a short period of time, and successfully complete matters in accordance with the established procedures. The majority of government functional departments need to do a good job of research and understand the difficulties existing in the process of handling affairs for the masses in a timely manner^[6].

2.6 Precise Governance to Meet the Demands of the Public

The use of big data technology can dig deep into the information behind the needs of the public, and through the processing of massive data, workers can identify social problems and pain points, and provide more accurate policy directions for the government. The

use of this technology also enables the establishment of problem-oriented service processes, shifting the focus of services from administrative processes to problem solving, and bringing them closer to public expectations. Big data technology can accurately locate problems, provide solutions, and make the work of government service departments more targeted and effective. Through real-time monitoring and feedback, the government is able to quickly adjust its service strategy to meet the new needs of the public in a timely manner. When conditions permit, technologies such as artificial intelligence can be used to build a personalized service platform to provide customized solutions for each user and improve the service experience. With the support of big data, the government can more comprehensively understand public needs, establish a more flexible and efficient Internet government service process, and realize a new problem-oriented and service-first government service model. This innovative approach will establish a closer and more interactive relationship between the government and the public, and promote the “internet + administrative services” model to continuously move towards an intelligent and personalized future^[7].

Conclusion

To sum up, the wide application of big data has brought revolutionary changes to the “internet + administrative service” model. Through the in-depth mining of massive data, the government can have a more accurate insight into social needs, realize personalized services, and improve the scientific decision-making. Driven by big data, government services have become more efficient and intelligent, accelerating the exchange of information between the government, citizens and enterprises. The innovation of this model not only promotes the modernization of government governance, but also brings convenience and transparency to society. With the continuous progress of big data technology, the “internet + administrative service” model will continue to evolve, laying a solid foundation for building a digital society and providing people with smarter and more convenient public services.

References

- [1] Lei Z. The Innovative Development of

- Administrative Service of China in the Internet Era——commenting on internet + administrative service: New Situation, New Trend, New Future[J]. *Science and Technology Management Research*, 2022, 42(23): 243.)
- [2] Li-Ling M. Research on the optimization of administrative services of “integrated network system” of shanghai transportation[D]. Shanghai Normal University, 2022.
- [3] Dong-Ning Y. Research on the operation mechanism, effect evaluation and governance strategy of “internet + administrative service”[D]. Dongbei University of Finance and Economics, 2022.
- [4] Jie L. Research on the existing problems and countermeasures of “internet +” administrative service in D city[D]. Shanxi University, 2022.
- [5] He-Jun F, Ting Wu, Si-Jin He. How does the “internet + administrative service” platform optimize the urban business environment?——based on the perspective of interactive governance[J]. *Journal of Management World*, 2022, 38(10): 126-153.)
- [6] Zhong Z. Analysis on the construction of “internet + administrative service” platform in the context of network[J]. *West China Broadcasting TV*, 2022, 43(18): 63-65.)
- [7] Yi-Ping L. The innovation of “internet + administrative service” model driven by big data[J]. *Modern Enterprise Culture*, 2022, (25): 59-61.)