

Construction of Site Information Management System from the Perspective of Big Data

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ABSTRACT

Under the new round of scientific and technological revolution and industrial change, big data technology has become an important driving force for social progress. In the construction of site information management system, big data technology can provide technical support in preservation, restoration, retrieval, classification and other functions. However, at present, there are still some difficult problems in the construction of site information management system, such as low digitization level, low comprehensive quality of construction personnel, and incomplete platform governance system. Based on this, the paper puts forward three suggestions on improving digitization level, building high-quality talents and constructing standardized management system, in order to provide reference for the construction of site information management system.

KEYWORDS

Big data; Site information; Information management system; Digitization

1 Introduction

In the information age, most information management systems use big data technology to deal with complex and diverse information. As a kind of cultural resources, site information is a kind of large-scale and diversified information, which should be managed by more intelligent means. Previously, most people used manual management, which was prone to problems of poor confidentiality and low efficiency, and there were certain difficulties in searching and updating information^[1]. With the expansion of the application scope of big data technology, its powerful practical function has entered all fields of human society and played a pivotal role. When enabling the construction of the site information management system, big data technology can achieve innovative breakthroughs in retrieval, storage, life, etc., and promote the site information management system to integrate with the society. Therefore, this paper briefly expounds the connotation and function of big data and the application path of big data in the construction of site information management system, so as to contribute to the construction of site information management system.

2 The Main Connotation of Big Data and the Relationship Between the Construction of Site Information Management System

Big data refers to a data set of large-scale, high-speed and diversified data, which is an information asset that cannot be captured, managed and processed by traditional data processing tools^[2]. Big data can generally be divided into structured and unstructured data^[3]. Structured data refers to the data in the database; Unstructured data refers to data that has no fixed format or structure, such as data based on images, audio, video, etc. The purpose of constructing the site information management system is to realize the unified storage and management of site information, so as to meet the needs of scientific research and management, and provide a knowledge acquisition platform for the public.

Big data technology can help the collection and processing of site information, and plays an important role in the construction of site information management system. First, as far as the preservation function of the site information management system is concerned, big data technology can save the site information in a digital way and promote the transformation of the traditional information management mode into an intelligent management mode. The intelligent management mode can not only realize the continuation and promotion of site information, but also improve the work efficiency of managers, and then strengthen the function of site information management system. Second, in terms of the restoration function of the site information management system, big data can provide empirical evidence for the protection and restoration of site information, maximize the restoration of the original appearance of the site, effectively prevent the damage and destruction of the site, and achieve the fundamental purpose of the site information management system. Third, as far as the retrieval function of the site information management system is concerned, big data can carry out in-depth mining and innovation of site information, and improve the utilization efficiency of the site information management system. Fourth, as far as the classification function of the site information management system is concerned, big data can fully integrate and classify site information, provide rich teaching resources for site education,

feed site information management, and thus empower the subsequent construction of the site information management system. In other words, big data provides technical support for the construction of site information management system, and promotes the standardization and intelligence of site information management.

3 Difficulties in the Construction of Site Information Management System from the Perspective of Big Data

3.1 The Level of System Digitization Is Low

China has the world's largest 5G mobile network system, and this perfect information construction is the infrastructure for the construction of site information management system. However, the digitization level of most site information management systems is still low, and the joint construction, sharing and common of site information can not be realized, resulting in the value of site information can not be fully utilized, and the construction of site information management system is blocked.

3.2 The Comprehensive Quality of Construction Personnel Is Not High

The construction of site information management system needs more high-level talent team, which not only requires the talent team to have innovative ideas, but also requires a strong practical ability. However, at present, the construction of the site information management system is in the exploratory stage. Due to the lack of construction standards and construction experience, it is difficult to cultivate talents, which slows down the construction process of the site information management system to a certain extent.

3.3 The Platform Governance System Is Not Comprehensive

The construction of site information management system is complicated, and it is easy to produce functional problems. At the front end of the site information management system, there are differences in the ways of data storage, invocation and interface expansion. At the back end of the site information management system, it is easy to produce problems such as poor compatibility and data duplication during information docking. This series of functional problems show that the governance system of the existing site information management platform is not comprehensive enough and fails to form an interconnected governance mode for internal data quality and platform maintenance, which restricts the construction of site information management system to a certain extent.

4 The Practical Strategy of Site Information Management System Construction from the Perspective of Big Data

4.1 Improving the Digital Level

Under the background of digitization, the site information management system should actively improve the digitization level and enhance the scientific and systematic management of site information. First, the collection of site information should strengthen optical remote sensing, three-dimensional scanning and color processing tools to ensure the integrity and authenticity of site information. Secondly, data visualization, big data storage and redundancy of big data should be actively used in site information storage to ensure the security of site information. Thirdly, data mining and machine learning technologies should be adopted in site information analysis to mine the existing network data, so as to ensure that the site information analysis results are the best results.

4.2 Building a Team of High-Quality Personnel

Relevant departments should build a team of high-quality talents to ensure that the site information management system can maximize the storage, retrieval, call and other functions. On the one hand, focus on the existing talent cluster. The person in charge of the construction of the site information management system should pay attention to the gathering of talents in related fields, so as to create a good situation of "each performing his own duties and advancing in an orderly manner". For example, experts in archaeology and architecture can edit and classify relevant site information; Computer talents are responsible for the design and development of the site information management system; The information personnel is responsible for the maintenance and update of the site information management system. On the other hand, focus on interdisciplinary personnel training. In the era of big data, the relevant departments of the construction of site information management system should cooperate with universities and enterprises for a long time,

actively carry out cooperation projects, discussions, lectures and other activities, promote knowledge flow and sharing, accelerate the comprehensive development of talents, and inject inexhaustible impetus into the construction of site information management system.

4.3 Establish a Standardized Management System

Due to the requirements of the quality of the construction of the site information management system, the relevant departments need to build a management system, and carry out the construction and operation of each link in strict accordance with the management system. First, the relevant departments should be absolutely rigorous in the development of the management system, including the collection, modification, deletion and update of site information and personnel operation methods into the management system. Second, managers should consider adding the data quality evaluation index system into the management system, and regularly evaluate the accuracy, completeness and timeliness of site information, so as to accurately grasp the construction quality of site information management system, so as to timely rectify the defective parts. Third, relevant departments should make specific arrangements for staff training, not only pay attention to the skills training of organizational personnel, but also pay attention to the construction of organizational culture, and maintain the safety of data and platforms throughout the entire organization to achieve the quality and safety of the site information management system throughout the cycle.

5 Conclusion

As a key force to promote social development, big data contains a wealth of management ideas and wisdom. Examining the site information management system from the perspective of big data can not only provide new technical support and innovative value for the site information management system, but also promote the continuous optimization of the site information management system. In the digital era, all walks of life should strengthen the research and application of big data technology, promote the deep integration of modern technology and site culture, and strengthen the application and innovation of big data in site information management system. At the same time, the further development of the site information management system needs to be continuously promoted from the aspects of policy support and data innovation, so as to achieve the normative and sustainable development of the site information management system construction.

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