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Problems and Optimization Measures in Computer Informatization Construction and Management

Chen Yongfeng[1], Wang Zhihai[1], Chen Haiyang[2]

[1]National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute", Kiev, 04107, Ukraine

[2]Zhonghui Longying (Haikou) Investment Co., Ltd., Haikou, Hainan, 570000, China

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Abstract: Based on the actual situation, with the continuous development of information technology, the value of computer information construction and management is becoming increasingly evident. It can effectively improve organizational effectiveness while comprehensively ensuring the security of data information. Based on this, this article conducts an in-depth analysis of the problems and optimization measures in computer information construction and management, hoping to provide some help for the development of related work.

1. Introduction

With the continuous development of information technology, computer information construction and management have gradually become important influencing factors in the global digital transformation process. Based on the actual situation, the level of informatization not only represents the overall operational efficiency and competitiveness of the industry, but also has a direct impact on data information security and confidentiality. In this context, the development of research on computer information construction and management is particularly important. In the specific research process, it is necessary to conduct in-depth exploration of the problems existing in information construction and management, and based on this, find effective optimization measures, so as to comprehensively promote the construction and management of computer information, provide sufficient guarantees for the improvement of management level and data security, and ultimately promote various industry organizations to achieve their own health and safety development goals while adapting to the needs of the times.

2. Problems in the Construction and Management of Computer Informatization

(1) The constantly changing technological environment poses challenges to management

With the continuous deepening of computer information construction and management, the technological environment is constantly changing, which has brought significant impacts to the management level. Based on the actual situation, changes in the technological environment require information systems to be constantly updated and replaced in order to meet the needs of the times.

This not only increases the cost of computer information construction and management for enterprises to a certain extent, but also further increases the work pressure on technical personnel. The emergence and application of new technologies have put forward new requirements for managers' technical insight and management abilities. Only with a forward-looking perspective can managers fully adapt to the changes in the technological environment and ensure that information construction and management can truly have sustainability and effectiveness. With the deepening application of emerging technologies such as big data and artificial intelligence, problems in data security and privacy protection have become increasingly apparent. How to ensure user data security and avoid data leakage while adapting to changes in the technological environment has gradually become one of the key considerations in computer information construction and management[1].

(2) Vulnerabilities in Data Security and Privacy Protection

The vulnerabilities in data security and privacy protection are themselves a major problem in computer information construction and management. With the continuous development of information technology, the network environment has become increasingly diverse, and the means of network attacks and security threats have become more diverse, bringing new challenges to data security and privacy protection. Based on the actual situation, the development of information technology has made malicious software, viruses, and other means increasingly covert, and traditional computer information security protection methods are gradually unable to fully respond to these new security threats. As a result, phenomena such as data and privacy breaches have become more frequent. The application of emerging technologies such as cloud computing and big data makes data storage highly dependent on third-party storage services, but this increases the probability of illegal access risks to a certain extent, making data control more cumbersome and difficult. In addition, internal threats such as operational errors and malicious leaks are also major factors that cause data security and privacy protection issues in computer information construction and management. Therefore, it is particularly important to effectively protect data security and avoid privacy leakage incidents in information construction and management.

(3) Insufficient innovation capability and system integration issues

Based on the actual situation, the changing technological environment has gradually made innovation the main factor affecting organizational competitiveness and the effectiveness of information construction and management. However, due to the fact that some organizations do not have good innovation capabilities in the changing technological environment and lack necessary resource support, the depth and breadth of their information construction and management are still difficult to guarantee, and their market response speed, service innovation ability, etc. cannot be significantly improved. Secondly, in the process of continuous development of emerging technologies, how to integrate new technologies such as big data and cloud computing is also a major issue in computer information construction and management. The integration of technology usually involves two major levels of issues: technology and management, such as incompatible interfaces, low departmental collaboration efficiency, and so on[2].

3. Measures to Optimize Computer Informatization Construction and Management

(1) Adaptive technology updates and establishment of continuous learning system

In order to comprehensively respond to the constantly changing technological environment and optimize computer information construction and management, it is necessary to first focus on the construction of adaptive technology updates and continuous learning mechanisms. This will effectively enhance the organization's ability to respond to technological changes, strengthen its technological innovation capabilities, and ultimately ensure that the sustainability and effectiveness

goals of computer information construction and management can be achieved. Based on the actual situation, the key to building an adaptive technology update mechanism lies in the process of technology evaluation and introduction, which involves monitoring and evaluating emerging technologies, as well as piloting, deploying, and applying new technologies[3]. To ensure the depth and breadth of technology evaluation, it is necessary to comprehensively strengthen the organization of cross departmental teams, invite relevant professionals, industry consultants, etc. to evaluate emerging technologies together, and fully ensure the scientificity of technology selection. In terms of continuous learning mechanism, it is necessary to further expand the scope of learning resources and continuously improve the richness and practicality of training content based on scientifically formulated training programs, so as to enable employees to update their technical concepts through participation in professional training. In this process, the introduction of practical projects can also provide employees with more diversified practical activities, allowing them to test their professional and technical knowledge through practice. Ultimately, while effectively stimulating employees' learning enthusiasm and mobilizing their innovative thinking, it can comprehensively promote the effective implementation of computer information construction and management work. In addition, for some innovative projects with certain value, it is necessary to provide employees with necessary resource support and create a good adaptive technology update and continuous learning mechanism within the enterprise. Overall, adaptive technology updates and continuous learning mechanisms can effectively enhance a company's ability to respond to future development challenges, ensuring that the company can optimize its business and service processes through continuous innovation, thereby laying a solid foundation for the company's long-term development and the achievement of information construction and management goals.

(2) Strengthen data security measures and privacy protection policies

Data security and privacy protection themselves are the foundation for achieving the goals of computer information construction and management. In this regard, enterprises need to increase their efforts in building data security management systems and do a good job in controlling the data encryption process. Based on the actual situation, physical security essentially refers to the control and monitoring of data center access, and the prevention of unauthorized personnel from accessing computer hardware devices; Network security refers to effectively addressing various privacy concerns in complex network environments through computer network security protection technologies, such as firewall technology, and utilizing regular security scans and other means to promptly discover and address vulnerabilities in data security and privacy protection. Secondly, the reasonable application of data encryption technology can ensure the security of data information during transmission, storage, and other stages, thereby effectively avoiding problems such as illegal access and leakage of data. In this process, the construction and management of enterprise computer informationization should be based on relevant laws and regulations, and from its own perspective, deeply analyze the overall business characteristics of the enterprise, and then formulate more targeted data and privacy protection plans. For example, in the stage of information collection and use, the information subject should be informed of the purpose and protection measures in a timely manner, and ensure that they can truly exercise their right to know and control. Once again, in order to further strengthen data security measures and privacy protection policies, enterprises should also attach great importance to the management of data access permissions, establish strict information access authorization processes, avoid unauthorized personnel from illegally accessing sensitive information, and lay the foundation for the orderly implementation of subsequent access record queries, accountability, and other work. In addition, whether individual employees have good awareness of information security and privacy protection is also a major factor that triggers problems such as data security and privacy leakage in computer information construction and management. Therefore, enterprises need to deepen employees' understanding of data security and

privacy protection from the essence, and create a working atmosphere within the enterprise to consciously maintain data security and protect privacy, ultimately avoiding negative problems such as data security and privacy leakage, and comprehensively promoting the achievement of computer information construction and management goals. Overall, the above measures have achieved certain practical results in preventing data security and privacy leakage issues. Enterprises need to combine their own computer information construction and management needs, refine data security and privacy protection methods, and further promote the healthy and sustainable development of enterprises[4].

(3) Promote technological innovation and system integration strategies

Technological innovation and system integration, as the core of computer information construction and management, require enterprises to continuously introduce new technologies while increasing their efforts in system integration, in order to provide sufficient guarantees for the improvement of operational efficiency and service quality. Based on the actual situation, a good innovation environment is one of the main factors affecting technological innovation. Therefore, from the perspective of their own computer information construction and management needs, enterprises can expand their channels for obtaining scientific and technological achievements and emerging theories by building good cooperative relationships with universities and social organizations. With the help of the construction of innovation platforms, they can provide employees with more diversified innovation opportunities, so that they can test their innovative ideas in practice and ensure that their innovative potential can be truly stimulated. In terms of system integration, enterprises need to fully ensure that the compatibility and data consistency issues between old and new systems can be effectively resolved during the technology update process. In this process, enterprises need to conduct a comprehensive evaluation of existing information systems, so as to effectively promote the achievement of data and application integration goals through the implementation of technology upgrades and other work, based on a clear understanding of specific indicators such as system data formats and protocols. In addition, enterprises can also attach importance to the application of new technology solutions such as microservice architecture, and expand, update, and upgrade system functions on the premise of not affecting the operation of existing systems. In addition, the integration of the system also requires in-depth analysis of user experience. In the context of increasingly diverse services, the requirements put forward by users are becoming more stringent. This requires enterprises to improve user experience by unifying user access portals, optimizing interactive interfaces, and fundamentally avoiding the inconvenience caused to users due to the lack of integration of the system. Overall, technological innovation and system integration are important methods for improving the operational efficiency, information construction, and management effectiveness of enterprises. Enterprises need to leverage the implementation of technological innovation and system integration work to optimize their existing business processes, ultimately laying a solid information system foundation for the healthy development of the enterprise[5].

4. Conclusion

In summary, with the continuous improvement of computer informationization level, various industries are paying more attention to the application of computer information technology, which makes the value of computer informationization construction and management increasingly evident. Based on the actual situation, the construction and management of computer informationization itself is a long-term and systematic process, which plays a very positive role in improving the internal management level of enterprises and promoting their healthy and sustainable development. In order to fully leverage the application value of computer information technology, enterprises

need to conduct in-depth analysis of the problems existing in their own computer information construction and management, and based on this, increase the exploration of optimization measures. Ultimately, while fully adapting to the needs of the times, they can enhance their core competitiveness in the market and effectively promote the achievement of their information construction goals.

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