Application and Effectiveness Evaluation of Big Data in Library Management

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Abstract: With the rapid development of modern science and technology, the era of big data has quietly arrived, profoundly affecting the development trajectory of all walks of life, and library management is also deeply affected by it. Big data technology can be applied to library management in the analysis of readers' behavior, collection resource optimization and library management service optimization, and through the service quality, management efficiency and other assessment work to drive the library management work to keep pace with the times, in order to gradually construct a digital library management system, and give play to the advantages of big data data data collection, analysis, processing and application. In this regard, the following section will analyze the application of big data in library management and the evaluation of its effects.

As a kind of data collection relying on a huge data model and diversified types of analysis and fast speed, big data can comfortably cope with the aggregation, processing, memorization, analysis and application of various library data resources in library management, which facilitates library managers to timely discover the status quo of the current stage of library management, adopt targeted application strategies to innovate library management, accurately solve the needs put forward by different types of readers, and optimize the collection and resource allocation in a sustained manner. Resource allocation, significantly improve the quality of library management services and management efficiency, to adapt to the current stage of the changes in the demand for library management. In this regard, based on my personal knowledge of big data technology, the author will briefly describe my insights on its use in library management and effect assessment for the reference of relevant managers.

1. Strategies for Applying Big Data in Library Management

(1) Optimization of book resources

Library managers can also optimize the collection resources through big data, according to the reader behavior data, book flow data, market book heat data and other data summary analysis, accurate analysis of different types of book demand changes, to facilitate the library management personnel for their own collection of resource demand changes, to take accurate library management optimization initiatives to reduce the introduction of unnecessary book resources, in order to enhance library collection Purchasing work to carry out the effectiveness. [1]Secondly, librarians can also monitor and follow up the activity trajectory of readers using books through big data, analyze the activity area that readers like more, and analyze the books in the area to understand the reading preference of readers, and then adaptively increase the investment of the book resources in the area, and add digital search tools to facilitate the readers to query the relevant

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reading materials, so that the readers can find the books they borrowed with more accuracy. Borrowing books. As for the less crowded collection area, the library management personnel can carry out publicity push through the big data platform to increase the exposure of this part of the regional books, attract more readers to borrow, browse, etc., in order to optimize the use of resources of books in different regional boards, and to achieve the optimization of book resources of the book management work empowered by big data.

(2) Development of individualized services

Book managers can also use big data in the customized serviceability construction of book management. On the one hand, library managers can analyze the readers' behavioral data for the pre-big data, or integrate the reading interests of other similar readers, paintings of readers' portraits and readers' exclusive interest models, and provide exclusive book recommendation services for different types in order to enhance the accuracy of book recommendation services. On the other hand, librarians can also provide readers with customized reading services through big data, so that readers can customize their personal borrowing needs according to their own professional background, subject research direction, cutting-edge trends in the field and other reading needs, targeted screening of periodicals, articles, special reports, etc. that meet their needs, and in time to get the push of the required publications to complete the retrieval of the relevant valuable information, browsing to To meet the personalized needs of individual book reading. In addition, librarians can also set up exclusive cloud files to allow readers to add and delete books in series, personalize the construction of personal libraries, and make it convenient for readers to watch different or the same books at any time, reducing the time spent on book retrieval and screening. The librarians can also achieve the purpose of constructing a perfect personalized service mechanism through the targeted use of big data technology.

(3) Analyzing reader behavior

Big data has powerful advantages in data collection and analysis, which can meet the needs of library management to analyze readers' behavior. Therefore, library managers can start from the level of readers' behavior analysis, through the big data summary of readers' lending records, book lending browsing time, retrieval history, and online platform end of a variety of operating behavior, personalized analysis of readers' needs and book lending mode, to facilitate the follow-up library customized service design. [2]At the same time, library managers can also be based on big data to carry out association rules, clustering and other data analysis, in-depth interpretation of different readers' behavioral data, so as to facilitate the provision of refined services by library managers. For example, librarians can use association rules analysis through big data, according to the correlation between the readers' borrowed book category data, to discover the intersection between different knowledge areas, so that librarians can be based on the linking and integration of book resources, so that readers with the same reading needs can accurately complete the reading in the future. Alternatively, librarians can also analyze the readers' behavioral data by clustering, and divide different readers into different groups according to their borrowing behaviors, interests, etc., which facilitates librarians to accurately push the reading of books and to focus on carrying out thematic lectures for different types of readers. Therefore, big data can be applied to the analysis of readers' behavior in library management.

2. Evaluating the Effectiveness of Big Data in Library Management

(1) Library management efficiency assessment

Library management efficiency assessment mainly refers to the specific use of big data in book linkage categorization, book resource digitization and library management informationization, etc. The purpose is to examine the real situation of the precise use of big data technology in the above work, and to find the entry point of optimization, so as to guide the innovative use of big data, and to structure a more comprehensive

digital library management system. In this regard, librarians should start from the dimensions of readers, managers and management data to examine the changes in the quality and efficiency of library management work before and after the application of big data technology, objectively and fairly assess whether the efficiency of library management has been effectively improved, and generate an exclusive assessment report to feedback to librarians, guiding them to take adaptive management initiatives to promote the optimal use of big data in library management work and achieve the efficiency of library management. The optimization of the use of big data in library management can achieve the purpose of the secondary use of big data technology for library management efficiency assessment and precision orientation.

(2) Service quality improvement assessment

For the assessment of library management service quality improvement, it mainly starts from reader satisfaction and book borrowing volume and circulation rate. On the one hand, libraries can collect readers' opinions and suggestions on the use of big data in library management through questionnaires, online assessment and readers' feedback and other digital paths, compare and analyze readers' views on the use of big data management before and after, and comprehensively examine readers' satisfaction, so as to facilitate librarians to perceive readers' real attitudes towards the work of recommending books, optimizing book resources and so on, which is promoted by big data, and to provide massive data support for the subsequent accurate optimization and development. Optimization and other work to carry out the real attitude of the readers, to provide massive data support for the subsequent development of accurate optimization. On the other hand, librarians also need to analyze whether to meet the expectation of using big data through the circulation rate of book resources and the overall utilization degree of collection resources, etc., in order to examine the real situation of using big data in the work of accurate push, book resources publicity, etc., and to create the prerequisite conditions for the subsequent optimization and reform of the service work, so as to further implement the use of big data in the management of libraries.

(3) Workflow optimization assessment

The workflow assessment mainly focuses on the specific application of big data in each work segment of library management, examines the overall fluency and rationality of the articulation and progression of the entire management process, and aims to reduce the unnecessary application of big data technology and simplify the entire library management process, so as to better utilize the effectiveness of the big data in the development of library management. In this regard, library management personnel can objectively analyze the promotion of the specific workflow by the use of big data from the status quo of the use of big data at all levels of business processing, data aggregation and processing applications, as well as diversified services, etc., and examine and find out the advantages and shortcomings of the optimization of the workflow by the application of big data and take flexible optimization initiatives for the shortcomings found therein, in order to streamline unnecessary workflows and give full play to the advantages of the use of big data. The advantages of the use of big data. [3]For example, librarians can assess the application of big data technology in the process of data collection, processing, analysis and application of readers' behavioral data, whether it is effective in reducing the time spent by librarians, as well as promoting the effectiveness of accelerating the application of various data and information, etc., and make a scientific and reasonable assessment to guide the subsequent application of big data technology and promote the sustainable use of big data in library management. Sustainability of Big Data in library management.

3. Conclusion

In summary, the use of big data in library management and effect assessment can support library

management to accurately analyze the behavior of readers, guide the optimization of library resource management, and provide customized management services for different groups of people to significantly improve the efficiency of library management. The evaluation of the effect of big data application can help managers objectively perceive the specific application effect of book management efficiency, service quality enhancement and engineering process optimization, and facilitate the follow-up of the shortcomings to take targeted optimization initiatives to further enhance the specific use of big data in library management.

References

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