

Research on the Strategy of AI Empowering Deep Digital Reading Promotion in University Libraries

Yanfang Yang

Lingnan Normal University Library, Zhanjiang, Guangdong, China

Abstract: The rapid development and wide application of AI technology provide technical support for the innovative development of all walks of life. Strengthening AI empowerment is of great help to improve the quality of in-depth digital reading promotion in university libraries. It can improve the accuracy of digital reading promotion, improve the quality of reading promotion services, and meet the learning and scientific research needs of teachers and students in colleges and universities. It is very important to promote the high-quality development of education and teaching in colleges and universities. Based on this, this paper first briefly analyzes the current situation of digital reading promotion in university libraries, and then discusses the strategies of AI-enabled deep digital reading promotion in university libraries, in order to provide reference for improving the effect of digital reading promotion in university libraries..

Keywords: AI; University Libraries; Digital Reading Promotion; Scenarios; Strategies

1. Introduction

Digital reading promotion constitutes a critical function in the contemporary development of university libraries. It enhances resource utilization, meets the demand for academic resources among faculty and students, and contributes to student development, pedagogical improvements, and research outcomes. However, current practices reveal two key limitations: First, insufficient emphasis on digital reading promotion by some institutions; second, inadequate utilization of AI advantages in creating intelligent reading scenarios, resulting in low engagement and suboptimal promotion outcomes. To address these challenges, systematic research and practical implementation of AI-empowered strategies

for in-depth digital reading promotion are imperative.

2. Current Status of Digital Reading Promotion in University Libraries

The development of digital reading promotion in university libraries is an inevitable trend in the transformation and development of library reading promotion under the background of information and digital era. However, from the current situation of reading promotion in university libraries, some university libraries still fail to come out of the traditional reading promotion mode, and still devote more energy to the promotion of physical resources and offline places to carry out reading promotion activities. They fail to pay more attention to digital reading and fail to carry out more professional digital reading promotion activities. Although in recent years, university libraries have also actively catered to the pace of the development of the times, continuously strengthened the construction of digital resources in the library, and achieved good results in information services, and also established a relatively perfect digital reading resource system. However, from the analysis of the actual situation, the university library has not achieved the ideal effect in the digital reading promotion work, the activities are limited, the formal problems still exist, and the personalized digital reading promotion has not been effectively realized. The participation of readers in digital reading promotion activities is relatively low, and the scope of promotion is relatively narrow^[1]. Therefore, strengthening in-depth digital reading promotion is still an urgent task to be completed in the reform and innovation development of reading promotion in university libraries.

3. Strategies for AI-Empowered In-Depth Digital Reading Promotion

3.1 Precision User Needs Identification and

Intelligent Personalized Matching

In-depth digital reading promotion must adopt a user-centric approach by analyzing needs through AI, context awareness, and dynamic recognition technologies. Libraries should collect user data including demographics, reading preferences, and behavioral patterns—while strictly complying with privacy protocols. Post-collection, AI-driven classification enables batch customization of promotion strategies for distinct user groups. This ensures both personalization and efficiency, laying the foundation for intelligent resource matching.

3.2 Constructing Intelligent Scenarios to Enhance Reading Engagement

Creating intelligent reading scenarios can enrich users' reading experience, enhance the interest of digital reading, and provide users with personalized reading services, which meets the needs of users' digital reading in the era of artificial intelligence. Therefore, university libraries should pay more attention to the creation of intelligent reading scenes in the process of promoting in-depth digital reading, which can continuously enhance the interest of digital reading on the premise of ensuring the quality of the promoted reading resources, so as to attract more users to actively participate in digital reading promotion activities, and improve the effectiveness of in-depth digital reading promotion in university libraries. Specifically, in the process of carrying out the deep digital reading promotion work, university libraries can apply AI technology to build intelligent scenes, which can change the problems of single and boring content form, lack of interest and interactivity in the traditional digital reading promotion, and make the reading promotion content more vivid, fresh and attractive. For example, Kaiping animation, VR, AR and other intelligent reading scenes can be added to bring users a better interesting experience and sense of substitution in the specific digital reading process, which can not only enable users to enjoy the digital reading process, but also enhance users' understanding and memory of reading content and improve the reading effect.

In addition, in the process of creating intelligent reading scenes with AI enabled, university libraries can also create a game

based and intelligent accompanying digital reading scene mode that takes into account the practical and interesting needs and preferences of users. AI is applied to create a virtual reading situation. At the same time, AI technology is used to find a partner with the same reading interests and preferences for users in this situation, so that they can become the companions of each other's reading in the virtual reading scene, communicate and discuss with each other. In this way, users can be encouraged to continue digital reading and develop good reading habits. Selecting the "accompanying reading" in the reading scenario for users can not only make users feel no longer lonely in the long-term digital reading, but also deepen users' understanding of the reading content and improve the effect of reading^[3]. In addition, the intelligent scene can better capture the user's information and conduct in-depth and accurate analysis of the user's perception effect in the scene, so as to provide a reliable reference for further optimizing the construction of intelligent scene and adjusting the promotion scheme of deep digital reading. In the process of building intelligent scenes, university libraries can also develop and build corresponding app platforms, create good intelligent reading scenes for users through app platforms, and develop and build diversified intelligent service functions in the scenes, including machine question answering, content pushing, intelligent reminding, intelligent evaluation and testing, so as to better enrich users' reading experience in intelligent scenes and improve the effect of University Libraries' in-depth digital reading promotion.

3.3 Integrated Service Elements for Enhanced Scenario-Based Capabilities

Libraries must holistically integrate service components by bridging online promotion with offline activities. This includes consolidating digital resources, diversifying service modalities, and collaborating with external institutions to expand resource pools. AI facilitates dynamic optimization of promotion strategies by analyzing user feedback and scenario performance metrics. Cross-institutional resource sharing further enriches service ecosystems, ensuring sustainable improvements in promotion efficacy.

4. Conclusion

To sum up, AI enabled deep digital reading promotion in university libraries has important value in improving the efficiency and effect of the promotion work and meeting the personalized reading needs of the majority of teachers and students' readers. University libraries should change the traditional concept of reading promotion, improve their own level of intelligent promotion, make full use of AI technology to accurately identify user needs, realize personalized reading promotion, and create intelligent scenes to enrich users' reading experience. In addition, they should integrate multiple service elements to continuously improve the ability of digital reading promotion service. In the future research of digital reading promotion in university libraries, we should continue to strengthen the research and exploration of AI

enabling strategies, continue to introduce new AI technologies, and continuously improve the depth of digital reading promotion in university libraries.

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