

# Research on the Reading Promotion Mode of Smart Library

Pan Hui

South China University of Technology Library, Guangzhou, 510641, China

**Keywords:** Reading promotion; Smart library technology; Promotion model

**Abstract:** Connecting the smart technology of smart library with the future reading promotion mode and development direction is helpful to construct a new reading promotion mode. In this paper, the author studies the library reading promotion modes in China by using the intelligent library technology, and puts forward three kinds of reading promotion modes. At the same time, the framework, mechanism and key technologies of reading mode are analyzed in detail, which is of theoretical and practical significance to the development of reading promotion.

## 1. A review of the application of smart library technology in reading promotion

In recent years, as reading promotion activities have gradually received attention and gradually developed on a large scale, libraries have gradually begun to use the new technologies and smart technologies of smart libraries in reading promotion activities. Wang Yunping pointed out that Qinhuangdao City uses the mobile library model to build a mobile reading promotion platform. The platform combines library and university library resources, and uses mobile library model and full coverage WiFi communication network to realize the construction of mobile reading promotion platform. Through the analysis and comparison of reading promotion projects and reading promotion activities carried out by domestic university libraries such as Peking University, Chongqing University and Sichuan University, Wang Yanli summed up the reading promotion model based on five information technologies. The five information technologies are respectively Multimedia technology, new media platform, big data concept, game promotion concept and business process reengineering, and on this basis, it is proposed that the library in China should pay attention to the application of library wisdom technology in the development of reading promotion work, and organically integrate information technology.

## 2. The library reading promotion model of smart library technology

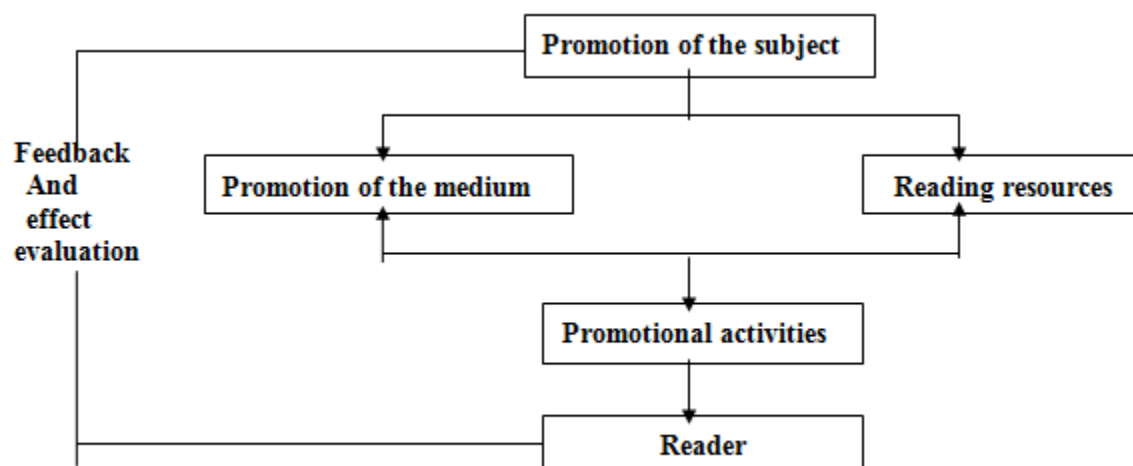


Fig 1. The five elements of reading promotion and their relations

Figure 1 shows the five main elements of library reading promotion, namely reading resources,

reading promotion subjects, reading promotion media, reading promotion activities and readers. As can be seen from Figure 1, the library reading promotion work first needs to have the main body of promotion, and at the same time use the reading resources correctly and reasonably, through a certain promotion medium, and design the form and content of the reading promotion activities, so as to Read the object of the promotion - the reader has a certain influence. During this period, the reader's feedback is also continuously adjusted and optimized for reading and promotion, in order to achieve the best effect. Based on the above analysis, this paper determines the main modules of research from the perspective of Chinese libraries, namely reading resources, reading and promotion subjects, reading promotion media and reading promotion activities.

After the above analysis of the five elements of the reading promotion model, this paper starts from the perspective of the library, the promotion reading subject, reading resources, reading the promotion media and reading promotion activities as the main content of the library reading promotion model based on smart library technology. The framework of Chinese library reading promotion model based on smart library technology is constructed, which includes four sub-models, namely, knowledge of reading and promotion resources, wisdom of reading and promotion services, diversification of reading and promotion media, and standardization of reading promotion activities.

### 3. Reading promotion resources knowledge model construction

#### 3.1 Reading Promotion Resource Knowledge Mining Model Construction

In the library's reading promotion activities, the two most important resources are the books, literature, journals and other resources for reading and promotion. In the continuous reading and promotion work, the in-depth exploration and effective use of these two kinds of resources is of great significance for the library to carry out reading. How to integrate and upgrade books, literature, journals and other resources to meet the reader's growing personalized and differentiated reading needs, and how to use the analysis of readers' reading behavior to better predict the development trend of reading promotion is study the important content of the reading promotion model.

Based on the wisdom technology of the smart library, this paper constructs a framework for building a knowledge base of reading promotion resources. The construction of the reading promotion resource knowledge base is based on library collection resources and reader information resources. It uses WEB mining technology, knowledge mining technology and database related technology to dig deep into two types of resources, and builds a knowledge base of reading promotion books, literatures and other resources and readers.

#### 3.2 Construction of the basic information base

##### 3.2.1 Establishment of the reading promotion resource information base



Fig 2 Read the construction of promotion resource information base

The basic data used to establish the reading promotion resource information database includes three categories, the first category is the library's digital library resources, the second category is network resources, and the third category is other shared resources. Among them, digital library resources include books, documents, audio and video, pictures and other physical resources, as well as various types of electronic resources. Collect and import resource data, clean and pre-process resource data, filter out useless information, and avoid duplication, redundancy, and noise as much

as possible. The construction of the reading promotion resource information base is shown in Figure 2.

### 3.2.2 Reading and promoting the construction of readers' information base

Reading the promoted reader information in reading promotion is also an important resource. The reader's complete information base can ensure that readers' general needs and differentiated and individualized needs are understood on the basis of full exploitation, so as to develop targeted reading promotion programs and activities.

By analyzing the reader's information data, the basic data used to build the reader information database is divided into three categories. The first category, the reader's persistent fixed information includes the reader's name, gender, ethnicity, age, unit, education level, address and other information; the second category, the reader's reading behavior information includes static information, dynamic information, readers' age distribution, gender Proportion and so on. The third category is the reader's personal subjective information, such as the professional field, direction, information that the reader is interested in, and the suggestions for improvement.

The three types of basic data of the reader are collected, collected and imported, and the basic data is pre-processed before the database is built, which reduces the redundancy of data and the interference of irrelevant information. The pre-processed data is analyzed and mined, the concept and subject of the input information are extracted, the fields of the user information base are parsed, and the data is added to the reading promotion object information base. Reading the promotion object repository needs to be updated based on changes to the web log and the tracking log. By establishing a library of reading and promotion objects, more valuable information and patterns can be extracted from them, thereby improving the matching degree of the reading promotion model to the needs and development trends. The construction of the reading and promotion reader database is shown in Figure3.



Fig 3.Establishment of user information base

## 3.3 Knowledge Mining and Reading Promotion Resources Knowledge

### 3.3.1 Reading promotion resource knowledge mining and knowledge base establishment

Through knowledge mining technology, the massive data resources in the reading and promotion resource information database are combined horizontally and vertically, and the data analysis and knowledge mining of the intrinsic relationship of knowledge are deeply integrated, and the knowledge is clustered and analyzed. Through certain knowledge mining algorithms and tools, the semantic associations between the various types of knowledge, the topic associations, and the borrowing information associations between the collections are analyzed, and the readers' reading choices are enriched. By reading the in-depth mining of the promotion resources, it is possible to effectively establish the connection between the collection resources, provide readers with more types of reading resources, and simultaneously form resources and associations into a knowledge base.

### 3.3.2 Knowledge mining of readers' information resources and establishment of portraits of readers

The first is the knowledge mining of readers' reading needs. Readers' reading needs can be roughly divided into three categories, namely, the reader's current reading needs, the reader's

reading requirements in the fuzzy consciousness, and the potential reading needs that the readers themselves are not aware of. By inferring the potential needs of readers that are not expressed and unrecognized by mining the demand information and access behaviors of readers who have existing reading behaviors and reading needs, and predicting the trend of readers' demand changes.

The second is the knowledge mining of readers' reading behavior. Based on the basic information in the information database of the promotion object, the data is filtered, analyzed, integrated, and the reader's mental model, psychological characteristics and reading behavior rules are mined, and the psychology of the excavated readers is explored. The results of preferences and reading behaviors were analyzed and evaluated. Use knowledge mining technology to form a more accurate and humanized "reader portrait." According to each reader's unique "reader portrait", it provides a more targeted, humanized and personalized reading promotion model experience, such as different reading recommendation content display forms, different human-computer interaction methods, etc. The reader's personalized experience needs to maximize the user's satisfaction and satisfaction, stimulating the reader's reading interest and helping the reader to cultivate the habit of reading for life.

#### **4. Reading promotion service intelligent mode construction**

##### **4.1 Reading Promotion Service Intelligent Model Framework Construction**

From the macroscopic point of view, as the main body of reading promotion in China, the library is the main force and leader of reading promotion, and plays a pivotal role in reading promotion activities, and also plays an important role. In order to realize the wisdom of reading and promoting the intelligent service model, the library must first realize the intelligent interconnection and integration mode of the library. In terms of the wisdom of reading promotion services, the library must first realize a wide range of connected intelligent service models, the main contents of which include the association of libraries, library and library, and characters. To realize the management of reading promotion and the interconnectivity of services, the widely interconnected libraries will become an important support for future reading promotion. Secondly, the integrated sharing and intelligent mode service model will be realized. The main contents include triple play, cross-border integration, new and old integration and Diversified integration.

##### **4.2 Mobile Library as the main body of reading promotion intelligent service construction**

Due to time and space constraints, the library's resources have not been used by the entire readers, resulting in the limitations and short-term nature of reading promotion activities. Through the mobile library, readers can use the library's reading to promote various resources anytime and anywhere, and at the same time, they can establish contact with libraries and other readers anytime and anywhere, so that readers can read and realize the promotion of reading promotion in the whole country. In the context of the promotion and development of mobile Internet information technology, the contemporary library reading promotion model and the reader's reading needs, reading needs and requirements have developed significant changes. The mobile library can accurately grasp the range of requirements for reading and promotion objects, cooperate with the reading methods of reading and promotion objects, and clarify the readers' reading needs.

In recent years, with the continuous integration of Internet technology and library reading and promotion, the mode and service of library reading promotion has been continuously improved. In the reading promotion activities, readers can access the library anytime and anywhere through wireless access using mobile apps such as smartphones and mobile reading devices such as Kindle. The mobile library provides readers with a more convenient channel for reading and promoting resources. The mobile library can directly connect the resources in the library knowledge base with the readers, providing readers with rich digital resources and these resources can be directly accessed by the readers anytime, anywhere. At the same time, the degree of renewal of the digital resources of the library and the number of types are also increasing. The mobile library can provide readers with reading reference, personalized information push, reading resource collection inquiries

and daily lending services in the reading promotion activities.

### **4.3 Networking platform-based reading promotion intelligent service construction**

The advent of the digital network era has made a huge difference in the way of reading, the way of reading, the scale of reading, and the characteristics of reading has also changed accordingly. Based on the digital network platform, the all-media network platform can achieve a huge improvement in the way of reading promotion by using different media forms and different content forms. Use the all-media approach to establish a library reading promotion and mobile terminal reading promotion client, and open a reading promotion event notice, reader exchange and message, training lectures, live books and new book recommendations.

The digital network platform has improved the personalization of reading promotion. Personalized reading promotion can use the digital network platform and mobile terminal to use Douban, Weibo, etc. to carry out reading and promotion bibliography, reading activity information push service, and use relevant tools and carriers to build your own personalized reading knowledge base for readers. While satisfying the individualization of the individual, it can also satisfy the reader's reading communication needs. The digital network platform has turned the original one-way reader activity into a diversified discussion and communication activity, and readers can discuss and exchange opinions on topics such as reading books.

### **4.4 Reading and Promoting Intelligent Service Construction Based on Entity Library**

The physical library carries all kinds of activities for reading and promotion. The physical library cannot be “disappeared”, but will further develop with the development of the Internet and information technology, showing reader-centered, more modern and more humanized. On the one hand, it provides a more humane smart service and reader experience for reading promotion activities. In the reading promotion activities, the physical library has a large number of books borrowing needs every day. Smart appointments and borrowings have changed the traditional book booking service mode, realizing the comprehensive and self-service of book reservations, reflecting automation and intelligence. The smart appointment bookshelf speeds up the readers' ability to find books and improves the efficiency of the library in reading promotion.

## **5. Conclusion**

This paper constructs a new mode of reading promotion under the development trend of smart libraries. Based on the wisdom technology of smart library, it constructs the library reading promotion mode. Firstly, on the basis of reading and promoting the traditional model, combined with the wisdom technology in the smart library, the research idea was designed and the reading promotion model framework was designed. Secondly, after constructing the complete promotion model, the reading promotion sub-model is constructed from two angles, namely, the wisdom of reading promotion subject service, the upgrading of reading resources, and the knowledge of reading and promotion resources. The study links the wisdom technology of the smart library with the future reading promotion mode and development direction, which has both theoretical and practical significance for the development of the reading promotion business.

## **Acknowledgements**

This article is the 2015 research project of the Guangdong Provincial Library “Application Research of Social Network Service in University Library Reading Promotion” (Project No.: GDTK1532) and the 2015 Guangdong Philosophy and Social Science Twelfth Five-Year Plan Project “Micro-propagation” One of the research results of the study on the influence of fragmented reading on the appreciation of college students' literature reading (Project No.: GD15XTS06).

## References

- [1] Kai-Qiong L . Research on Reading Promotion Modes of University Libraries[J]. Library Research, 2013.
- [2] Ou B . A Research on the Implementation Mode of Reading Promotion[J]. Research on Library Science, 2012.
- [3] Ye X U , Library Z . Research on Digital Reading Promotion Modes of Public Libraries[J]. Library Research, 2014.
- [4] Zhen L I , Library G . Research on the Construction of Reading Promotion Modes for the Disabled [J]. Journal of the Library Science Society of Sichuan, 2014.
- [5] Libin Z , Library L U . Research on the Reading Promotion Mode of University Library under the Environment of Micro Media——Taking the Liaoning university library as an Example[J]. Technology Intelligence Engineering, 2015.