The Present Situation and Trend of Mobile Library Services

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Abstract. The concept of mobile library has broken into our modern daily life, the service items of mobile library naturally become a research hotspot. This paper describes from the current situation development of mobile library to the challenges it faced, by the new requirements of mobile library services in the information era, as well as analysis its project and content, and then starts to explore prospects of the mobile library service.

Introduction

In recent years, with the rapid development of modern communication technology, mobile library service has increasingly become a hot issue in Library and Information Science. In fact some of the libraries at home and abroad has opened a service as mobile OPAC, but has yet to a complete application services of mobile digital library, how to make the readers to access various databases resources by a handheld device has become a concern.

Overview of Mobile Library

Mobile library means relying on a mature wireless mobile networks, the Internet and multimedia technology that enables people unlimited from the time, place and space, query library information, browse and access to resources content conveniently and neatly through a variety of portable mobile devices (cell phone, PDA, handheld readers, tablets, MP4, etc.).

However, the digital library in order to achieve the above functions, there are still some problems can not be solved, mainly the full access to various resources and unified search to databases of the library is not easy. First, the charges of Internet access are a major problem; secondly at the technical level also involves many problems. In addition to the limitations of the level of economic development and the information infrastructure, the digitized form is not the ideal way of reading, people's reading habits, reading environment, and reading health are not as printed matter. As the world's computer software magnate Bill • Gates said: "People are really reading from the computer screen long articles? Even I do not read the magazine on the computer." [1] Challenges and opportunities stimulate library pay more attention to the issues of mobile library service.

Mobile Library Service

Mobile library service, the library has improved reader's service model in the face of the rapid development of networking, communications and digital information technology, refers to the user receiving the service provided by the library throughout the limited from the time, place through the mobile terminal devices (such as mobile phones, PDA, e-readers, etc.)[2].

Challenges the Library Service Facing. Librarian Lack of Professional Sensitivity to Reader's Willingness to Mobile Reading. Internet provides a wealth of information, but also led to the deterioration of the information environment, information overload or information garbage appeared. When users search the required information, it always difficult to retrieve the counterpart of information. These factors have contributed to librarians have to help and guide users to information retrieval when they providing information services to users, to expand the depth and breadth of information services, improve the quality of information services to enable users to obtain their required information. In China, The library in this regard is not satisfactory, librarians lack of

professional sensitivity of capture user's needs, ignoring the actual needs of users, with low service efficiency, while also reducing customer satisfaction.

Electronic Journal of Full-text Services does not Extend to the Phone Library. Many libraries abroad have achieved the mobile collection: Crouch Fine Arts University Library preloaded all the listening music courses of semester into ipod, then organized and sort according their professors and courses number, students can use these ipod 12 hours at most. Virginia University Library built a e-text Center with 2100 e-books, the download people have amounted to 8.5 million during period of 21 months[3].

While, China failed to take good use of it facing such a huge mobile phone users, the mobile collection also full-text electronic journals construction area is very lacking. To carry out mobile phone library service needs a lot of money and resources to support, but also requires a lot of relevant expertise that library staff must have. These limitations brought many difficulties to mobile library electronic journals library services.

Copyright Issues Unresolved. Digital library in order to digitizing library resources, the first involving is digital copyright works. Library digital copy of a copyrighted work is based on service, without any profit purpose, therefore, is a fair use. However, when the library publish digitized works available to Internet users, due to its convenient and easy to get, it will inevitably impact on the sales market, thus affecting the economic interests of copyright owners, thus triggering copyright disputes.

Mobile Devices are Flawed: Low of Network Communication Rate, the Phone Screen is too Small to Reading, etc. Relative to notebook computers, mobile phone's small screen has no significant negative impact for the user's understanding, but because of the interface limitations, the phone can not give users enough message, so the user often missed a lot of content because they do not know to scrolling down the page when browsing the page and read the retrieve information. Compared with order by content structure(articles, chapters, sections), sorted by relevance ways more easier to understand and accept; vertical scrolling more popular than horizontal scrolling and page by page tumbling. User is often prone to frustration when browsing and retrieval information in a complex page [4].

High Cost of Surf the Internet: Bottleneck of Mobile Library Development. Wireless mobile digital library user's experience research data by Tsinghua University illustrate that the cost of surf the Internet hinders the development of mobile library. High cost of reading will increase the economic burden on the user, at the beginning of the popularity of mobile Library, it will undoubtedly reduce the user's initiative.

Items and Content of Mobile Library Services. Mobile Notifications [5]. Mobile users can receive books' order or overdue notification, or personalized custom book information, from library whenever and wherever possible. Role of library services changes from passive to active service.

Mobile Query. Users access library bibliographic retrieval system for bibliographic queries via mobile devices anytime, find titles in time, and make an appointment to borrow. You can also see whether the searching books have been lend out, to obtain their location, to make an appointment to borrow. In addition, you can query book catalog you borrow, expiration date, return due date, and so on. Users can query the library near outdoor if the necessary books, to improve the efficiency of the library.

Mobile Reading. Mobile reading, can also be called e-books resource Explorer, allowing users to browse or download custom mobile library resources through a mobile device anytime and anywhere, such as mobile magazines, mobile books, tool books, mobile jokes, mobile intelligence quiz. With the fast pace of modern life, the readers have little time to reading in the library, fragmented reading [6] becomes the way readers had to use.

The advantages of mobile reading are obvious: (1) Large storage capacity, small occupying space. (2) Illustrated, complete function. (3) Mobile reading out of the limits of time and space, easy to carry. (4) Conservation of resources. Mobile reading also has its disadvantages: (1) Readers have harm to eyesight. (2) Requires to reading users and equipment is high. (3) Copyright dispute occurred Frequently. (4) authority of information content and security issues of data still being questioned.

Mobile reading bring us a new and pluralistic reading experience, it is bound more and more accepted by the public. However, fragrance of paper, or the touch to flip, and the investment process that period with no interference can not be copied. As the British intelligence experts McGregor pointed out: "There is no one medium can completely replace another medium, the overall situation is complement each other, and gradually unite to address a specific communication problems." To achieve using library resources in its true sense, to ensure access to information and knowledge equally, mobile reading is an effective way. Thus, the mobile reading is necessary to carry out in the library.

Prospect of Mobile Library Services

The mobile library information services has acquire some study results, but there are still many problems to be solved, such as system construction is imperfect, the agreement is unclear and so on. Mobile library information services should do further research in the following aspects in the future.

Improve the Existing Communication Protocols. By method of cross-layer feedback to improve the existing agreement will help to improve the performance of the mobile library information service system, so that it can meet the needs of a variety of business [7]. That is, pass specific information through the layers of the protocol stack to coordinate process among the layers of the protocol stack, to adapt the wireless communication environment, to meet the different needs of various businesses.

Strengthening Mobile Library Construction. Strengthening the training of quality of librarians, holding computer technology, network technology and other related knowledge training regularly, implementation of reasonable vocational education and incentive mechanisms. Making the appropriate definition for the content of information services, and re-organized content to make it adapted to obtain on the mobile terminal. Giving full consideration to practical problems related to the environment, technology and capital, so as to ensure the smooth completion of the mobile library.

Strengthening the Network Guidance and Supervision. Fast-paced of life gave birth to the "shallow reading era" Today, the era of knowledge somehow changes to " times of knowing." Strengthening the checks and controls of electronic reading room and student's internet using, strengthening the network supervision, striving to create a healthy network environment to read, so that students' light reading in the "shallow reading era" can be harvested.

Strengthening Librarian Team Construction. The rapid development of computer technology, network and communication technology has library undergone a profound transformation, also put forward higher requirements of the librarians. In order to service for students better, university library should strengthen the construction of library staff. (1) Establishing a impeccable system of subject librarian. Subject librarians are librarians who proficient in a particular subject or even a few subject areas knowledge and provide services for users. Cultivation of subject librarians, establishment of subject librarian system, it is of great significance for the university library to meet the requirements of mobile reading age. (2) Increase the training of in-service staff. Library according to the specific job requirements, according to the required professional structure and knowledge structure, to develop a detailed training plan. To hire experts to give lectures, encourage serving officers to participate in a variety of business learning and training, to create conditions for continue education. (3) Introduction of competition mechanism, strengthen personnel management. Arouse the enthusiasm of librarians, develop their subjective initiative, make the whole quality of the librarians up to a new level.

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