Enhancing E-book Usage Efficiency: Wait-Free Library Services for Readers

Authors: Gu Liping

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Abstract

This study introduces a library service that promotes e-book utilization among readers. The project conducts usage testing on different e-book databases to structure e-book service models and compares the services of various databases. It discusses how to employ cataloging systems to integrate different types of service content. The conclusion is that e-books combined with library reference services can support university research, teaching, and learning activities. It is recommended that libraries develop an "e-book database - cataloging system - librarian blog" model to directly and simply enhance the efficiency of readers receiving information, accessing information, participating in discussions, and co-creating knowledge.

Full Text

Library Services for Improving E-book Usability: Services That Eliminate Reader Wait Times

Gu Liping
City University of Hong Kong Library, Kowloon, Hong Kong SAR

Abstract: This paper introduces a library service initiative aimed at promoting e-book utilization among readers. The project conducted usability tests on various e-book databases to develop a structured e-book service model and compare different database services. The discussion addresses how to integrate diverse service content through cataloging systems. The conclusion demonstrates that combining e-books with library reference services can effectively support university research, teaching, and learning activities. The paper recommends that libraries develop an "e-book database - catalog system - librarian blog" model to directly and simply enhance readers' efficiency in receiving information, accessing resources, participating in discussions, and co-creating knowledge.

Keywords: Electronic books, Reader services, Reference services, City University of Hong Kong Library

1 Research Background and Purpose

As networks and e-books continue to develop, libraries are attracting more users to enjoy various e-book services [1]. This also means that library services face new challenges. In this regard, Gall, J. E. (2005) reminds librarians to clearly understand their services and not be misled by the rapid growth of e-books [2]. In this rapidly changing information environment, libraries must still maintain their core characteristics: (1) facilitating rapid access to collections is one of the library' s core businesses; (2) supporting university research, education, and learning activities is one of the library' s core values; and (3) integrating collections with services is one of the library's core functions. Therefore, enabling readers to effectively utilize e-books is an unavoidable practical issue for current library development and represents the goal this study seeks to achieve.

2 Challenges of E-books for Library Services

2.1 Library Services for Promoting E-book Utilization

Falk, H. (2003) found that although e-book collections have soared, students' use of library resources remains limited [3]. Despite early users showing a continuous upward trend in e-book usage [4] (AU Ramaiah, C. K., 2005), this phenomenon still requires improvement. Therefore, helping readers make good use of books and realize their value in knowledge creation requires libraries to flexibly promote their collections. Ashcroft, L. & Watts, C. (2004) surveyed 127 UK universities on their adoption of electronic books and found they commonly faced management skill challenges in: (1) collection development; (2) marketing and evaluation; (3) user education; (4) technical skills; and (5) communication skills [5].

Domestically, Chen Weili (2009) proposed five integrations centered on "reader-centric" services [6]: traditional services combined with Web services, electronic reading combined with wireless networks, resource sharing combined with self-developed databases, static combined with interactive reference services, and quality education combined with research consultation services. Meanwhile, Hu Yonghong and Fu Yongfang (2009) suggested libraries strengthen e-reading room promotion, accelerate resource procurement, enhance librarian training, guide readers in resource utilization, and explore possible service models [7].

2.2 Key Issues and Research Questions

In academic libraries, existing e-book management approaches mainly include: (1) procurement; (2) cataloging and maintenance; (3) funding; (4) licensing and authentication; (5) diverse interfaces; (6) promotion; (7) user education issues;

(8) subject coverage; and (9) statistics and usage [8]. Carlock, D. M. & Perry, A. M. (2008) argue that future research should continue to examine academic libraries' impact, including: (1) providing better promotion and training for e-book platforms; (2) providing better course support; and (3) encouraging e-book vendors to develop products that meet faculty teaching and research needs [9].

Based on the above, this study' s research questions are summarized as follows: (1) How to support university research work? (2) How to support university teaching activities? (3) How to support readers' learning processes?

Through usability testing of different e-book databases, this study obtained various content service models to inform service strategy recommendations for the above research questions. Additionally, although Hong Kong' s instruction, textbooks, examinations, assignments, and reading lists are in English, outside the classroom, readers also have high demand for both simplified and traditional Chinese e-books. Therefore, this project selected foreign databases such as MyiLibrary, NetLibrary, eBrary, Springer, and WorldBook, as well as simplified Chinese-focused SuperStar and traditional Chinese-focused airiti Books as research observation objects.

Through usability testing of different e-book databases, the study obtained: e-book database reference information layouts, structured e-book service models, comparative service conditions across databases, and methods for integrating various databases through library catalog systems.

3.1 E-book Database Reference Information Layout

E-book databases generally use subject indexes similar to web navigation to assist readers in finding and using e-books. Using MyiLibrary as an example, shown in [Figure 1: see original paper].

3.2 Structured E-book Service Model

Building on the above, if we abstract the reference information layout patterns of different database types and structure information valuable for reader browsing, the result is shown in [Figure 2: see original paper].

3.3 Service Conditions Across Different Databases

Based on the "database - subject classification - publisher - bibliography - chapter" architecture, we can analyze and organize service models for various e-book databases. However, their interfaces and information management systems actually differ. Therefore, they need to be compared according to a standardized format, with results shown in [Figure 3: see original paper].

The differences and similarities across databases include: subject classification, secondary classification (second-level categorization under subject classification),

quick search, advanced search (subdivided query items under quick search), bibliography search (providing only basic search queries such as author, title, etc.), chapter search, full-text search, cross-database search (referring to cross-searching between e-journals and e-books), download/archiving, text clarity (scanning quality), and chapter index (auxiliary links on the left or right side for browsing that enable direct access to original pages).

3.4 Integrating Various Databases Through Library Catalogue

Based on the above, current catalog systems can effectively integrate e-books from various database types, representing one low-cost method for maintaining large-scale data integration. Another approach involves cross-database search systems and data mapping, which require continuous testing of data integration stability. Based on reader needs and habits, the former method was adopted, as shown in [Figure 4: see original paper].

4 Discussion: Strategies for Libraries to Promote E-book Usage

In summary, through usability testing of different e-book databases, the obtained service models and comparative results demonstrate that integrating various databases through library catalog is the most direct method for integrating different information resource types. However, university libraries centered on education still need to build upon this foundation to promote library services that encourage e-book utilization. Accordingly, recommended strategies for libraries to promote e-book usage are detailed below:

4.1 Research Support

Noorhidawati, A. & Gibb, F. (2008) surveyed three different academic environments for e-book usage: (1) actual surveys; (2) finding relevant content; and (3) promoting reading. Results showed that "finding relevant content" is the most common reason for using e-books [10]. This suggests that the convenience of verifying literature may have room for improvement, and making it easier for readers to query and verify references may indirectly increase e-book usage. Additionally, promoting reading still has potential for improvement. Naturally, assisting readers with research, particularly when they need to find relevant content, represents one of the reference service goals libraries can pursue for universities or research institutions.

Since various e-book databases can be integrated into library catalog systems, this gives seemingly "traditional"catalog systems new functions and roles: simple and direct integration and querying of relevant information. By subdividing authors, editors, keywords, subject terms, abstracts, tables of contents, and first paragraphs of chapters, libraries can provide subject search services on their websites. Combined with SFX cross-database searching, robust metadata con-

tent (which represents one of libraries' important contributions to the networked world) enhances information retrieval efficiency.

On the foundation of a well-developed catalog system, integrating metadata content from various e-book databases and coordinating with SFX cross-linking mechanisms can achieve research support objectives with minimal risk of data loss or mapping failure. Furthermore, through reference librarians' user education and real-time services, libraries can not only improve users' information literacy but also indirectly achieve research support goals.

4.2 Teaching Support

Bennett, L. & Landoni, M. (2005) argue that although academic libraries possess large e-book collections, they still fail to attract user attention, and librarians should find ways to improve usability and classification methods [11]. In other words, library services should not merely inform readers what the library "has," but should further consider what readers "want," proactively organizing and managing information for readers.

Zhou Liying (2008) advocates strengthening readers' information literacy education, optimizing basic resources, and providing specialized services to innovate library services [12]. In addition to regularly conducting and evaluating user information literacy education to enhance readers' , faculty, and students' awareness of e-book services and familiarity with system operations, libraries can also "embed" themselves into the core of university activities through three approaches for teaching support: (1) compiling reading lists for program planning and conducting journal and book procurement before the academic year begins; (2) compiling reading lists for course planning and conducting reference material cataloging before courses begin; and (3) compiling reading lists for course selection systems and conducting data web linking before teaching activities commence.

Through program systems, course systems, and course selection systems, libraries can embed e-book recommendations as reference materials into academic exchange activities between students and faculty. In fact, City University of Hong Kong Library already updates print reference book location information across three university systems. Now, integrating e-book metadata content through the catalog system will further enhance this service, transforming from passively updating information for the university to proactively recommending bibliographies for teaching activities. This is because libraries can leverage e-book characteristics to continuously subdivide, re-subdivide, and further subdivide book classifications to more accurately recommend appropriate references to students and relevant faculty.

4.3 Learning Support

Huang Min (2007) advocates that libraries create a relaxed environment for student autonomous learning, provide learning resources that meet needs, and

guide students to develop self-learning abilities and habits to compensate for classroom education deficiencies and prevent potential personality crises, cultural fragmentation, and disciplinary defects caused by specialized education [13]. Therefore, libraries jointly organizing exhibition activities with different schools within the university provides cross-disciplinary integrated education training, which holds practical significance for embedding libraries into university activity processes.

Libraries can utilize convenient e-books and web pages to provide library resource recommendations that cross disciplines, time and space, multimedia formats (text, images, audio, video), and literature carriers. Additionally, librarian blogs can attract other students to participate in online discussions and promote reading. As information environments change, information technology develops, and information equipment evolves, reader education remains one of the main tasks of library services and one that rapidly faces challenges.

In the past, new book display services involved either placing books and notice boards or holding exhibitions concurrently with book vendor presentations. In the internet age, various diversified forms can be combined because the cost of holding different forms of exhibitions, lectures, and reading clubs online becomes relatively low. Libraries can enable readers to learn about news, access information, participate in discussions, and co-create knowledge more simply and quickly through the "e-book system - catalog system - librarian blog" approach. Zhang Hong (2008) argues that in the internet age, changes in resource structures and formats make cultivating readers' information retrieval abilities and resource utilization awareness more important [14]. This requires innovative reader services, particularly services that eliminate reader wait times.

5 Conclusion

Observation results obtained the e-book database service model of "database - subject classification - publisher - bibliography - chapter." The analysis of database similarities and differences includes actual conditions of services such as subject classification, secondary classification, quick search, advanced search, bibliography search, chapter search, full-text search, cross-database search, download/archiving, text clarity, and chapter index. This paper proposes the "e-book system - catalog system - librarian blog" model to increase readers' efficiency in learning about news, accessing information, participating in discussions, and co-creating knowledge.

Recommendations for libraries promoting e-book reading: (1) utilize refined subject searching and reference services to improve user retrieval efficiency; (2) utilize reading list compilation to support program, course, and course selection activities; and (3) utilize joint exhibitions to support interdisciplinary learning.

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Note: Figure translations are in progress. See original paper for figures.