(REVIEW ARTICLE)

Role of library automation in school libraries

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Abstract

The study contracts about the importance of Automation in school libraries in the digital age. It is beneficial to students, librarians, faculty members, administrators and parents for several reasons. The library is the resource centre that supports and boosts the curriculum for the school. The study basically covers the objectives, application software, automation vocabulary, advantages of applications etc. Finally, the study covers the automation function of school libraries in the digital era.

Keywords: Automation; Library; School Library; Catalogue; Library management; ILMS.

1. Introduction

The word 'Library Automation' is being utilized broadly in library parlour to mean the utilization of computers and other ICT devices to achieve a portion of the traditional library exercises, for example, cataloguing, acquisition, circulation, stock verification and so forth. It very well may be characterized just as the utilization of computers and ICT devices in systems administration advancements in the library.

For some time, schools depended on library automation systems to catalogue and circulate their book collections. In the past few years, however, this software has played an even larger role in supporting teaching and learning. No longer just automating processes once done by hand, library systems have morphed into full-search resource gateways. The latest offerings classically let school librarians index Web sites, add related web links to book records, provide patrons with home access to the library catalogue, and many other features that secure the position of the library media centre as the research hub of any school.

2. Review of related literature

A Literature search made indicates that numbers of studies in the recent past were carried out to find out the role of automation in school libraries.

Although both LIS and literacy researchers have long studied children's reading habits, only a basic understanding of children's book selection has been achieved. Sebesta and Monson (2003) summarized a longstanding body of research that seeks to identify the kinds of books or reading materials that are most popular with children. Several other studies have examined how children choose books, especially by focusing on the factors that influence children's selection and identifying what kinds of books are popular with them. Several studies found that physical characteristics play a central role in book selection among children (Campbell, Griswold, & Smith, 1988; Fleener, Morrison, Linek, &Rasinski, 1997; Kragler&Nolley, 1996; Pejtersen, 1986; Reutzel&Gali, 1997); other studies found that children look for emotional

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responses and personal connections when choosing books (Carter & Harris, 1982; Moss & Hendershot, 2002; Pejtersen, 1986; Rinehart, Garlach, & Wisell, 1998; Samuels, 1989; Swartz & Hendricks, 2000).

2.1. Objectives of library automation

- To improve the degree of administration and nature of yield.
- To satisfy needs that can't be accomplished by a manual framework.
- Data that shows up just in electronic arrangement.
- To share the assets effectively among various libraries in a region.
- To have effective control over the entire operation.

2.2. Areas of library automation

- Automation of the library work.
- Use of electronic assets inside the library (e.g., CD-ROM's)
- Accessing remote electronic assets (e.g., the Internet)
- Office computerization (e.g., word processing, spreadsheets, databases)
- User services (e.g., Computer centre, multimedia centre)

2.3. Advantages of computerization

- Labour sparing
- Cost-effective
- Efficiency in speed and activity.
- Ease and exactness in data handling.
- Great speed and promptness in library activity.
- Housekeeping operations.
- Great manipulation possible
- Reasons for computerization
- Intellectual Access to title, creator, subject, and notes on all material for quick recovery
- For students and educators
- Preparation for utilizing scholarly/academic and public libraries
- Collaboration Time for educators and librarians to plan and co-teach all around created units and exercises
- Management of catalogue
- Circulation
- Material and patron activity

2.4. Where should you start?

- What's on your racks?
- What's on unopened boxes?
- What's in workplaces or book rooms?
- Just books
- Are there non-print, including video, CD-ROMs, and DVDs?
- What is the age and state of everything?
- Is the assortment proper for students/patrons?
- Sort all that you need to keep by arrangement and call number

2.5. Automation features to consider

- Provides access through online or school building-based
- Provide an interactive website for school library
- Allow business information base connects to the school Website
- Allow bringing in and classifying of URLs
- Generates normalized and custom reports for dissemination, reference indices, or material administration
- Provides Z39.50 admittance to other library catalogues (This component requires an online application)
- Provides usability for benefactors and librarians
- Allows distinctive foreign dialect interfaces for website and index/catalogue.

2.6. Automation vocabulary

- **Barcode:** A printed horizontal strip of vertical bars which represent numbers used for identification
- **Database:** A digital file containing many records, all of which have the same set of fields.
- **Integrated System:** An automation system that requires the library to use a license
- **Module:** A software segment which performs a specific library function
- **OPAC:** Online Public Access Catalogue.
- **Protocol:** An electronic standard by which libraries conduct the flow of information- Z39.50 allows libraries to share MARC records.
- **Retrospective Conversion:** The process used to convert shelf lists into a searchable, computerized database of library holdings- after conversion, records can be used in an automation system.
- **Shelf List:** A catalogue of items owned by a library, arranged in shelf order.
- **System Upgrade:** A new, better version of automation software-makes us all old before our times.
- **Vendor:** Manufacturer, distributors, and seller of library goods and services.
- **Z39.50:** A standard for information retrieval that makes it possible for library collections to be remotely searched.

2.7. Library automation using RFID

RFID is an innovation that is starting enthusiasm for the library network in light of its applications that guarantee to build proficiency, security, and upgrade client fulfilment. Currently, libraries use standardized barcode system and security strips. Utilizing barcodes, the libraries can track and keep the records of lending, borrowing, and racking status of items, for example, books, audio or videotapes, CDs, DVDs, and so on. Security strips on library items records their movements. But barcodes and security strips (electronic article surveillance or EAS) have their restrictions. They are delayed to peruse and are inclined to attacking by cheats/thieves. All these lead to irreparable loss to a library and its significant stock. This is the place RFID innovation can go to the guide of library administrators and clients.

2.8. Application software

RFID application software is generally a browser-based management interface for centralized monitoring. The software empowers safe, secure, and highly efficient movement of library items by asset tracking and prevents loss or tampering.

Tags and readers: The microchips on the RFID tags can be programmed electronically. Similarly, a reader (technically known as an interrogator) has to be programmed to send and receive correct information from a tag.

2.9. There are three types of tags

- Read-only
- Write once (Worm; Write Once Read Many)
- Full read/ write
- All of the RFID tags used in libraries are passive types of tags.
- Generally, data stored on the tags have the following options:
- Item ID
- Theft bit
- Shelving information
- Data of circulation
- The barcode of an item and its item ID is kept identical.

Readers are RF detectors that can read tags to obtain the information stored within them. It has an antenna that sends and receives signals. A reader generates an RF field. When a tag passes through the field, the information stored on the chip is decoded by the reader and sent to the server.

There is software in each reader to facilitate communication with the server and therefore automate the whole library system.

Today's library RFID's mainly operate in the high-frequency (HF) 13.56 MHz band, the most widely used of the RFID HF bands because it's the global standard frequency for contact-less smart labels. These tags have a read range of about 3 feet.

3. Managing and maintaining school library automation systems

The high-tech nature of managing and maintaining the school library automation system has made the mastery of technology skills essential for a librarian's effectiveness in the school. As technology changes, the standards for cataloguing information also change. As part of a school or district management team, the school librarians are an active participant on any decision-committee for upgrading or purchasing an automated library system. As a team member, the school librarians are involved in reviewing different systems and examining how well the components integrated, how effective the management system serves the functions of the library, and how the OPAC helps students to locate, access, and use the library material. Regular maintenance of the library such as updating catalogue and patrons records, is part and parcel of using an automated library catalogue. In addition, continuous training for staff and students on how best to use the features of the LIS is important for a school librarian's job as an information specialist.

3.1. Benefits for library management

- Uncompromised security within the library
- Efficient collection management system (can be located suitable and made 24x7)
- Uncompromised collection security
- Flexible staff schedules
- Labour savings methods free the staff to help customers
- Higher customer/patron satisfaction level
- Improved inter-library cooperation
- Better preservation of inventory because of less handling by the staff
- The same security and labelling formats for all items such as books, CDs and DVDs. Hence, better management of databases

3.2. Benefits for library staff

- Time savings device free them to help the customer better
- Labour savings devices free them from doing repetitive, physically stressful tasks
- Time can have flexible working schedules

3.3. Benefits for library patrons

- Self-check-in and self check-out facilities
- Self-check-in and self check-out of all types of items (books, audiotapes, videotapes, CDs, DVDs, etc.) at the same locations
- Quicker service such as payment of fees, fines, etc.
- Better inter-library facilities, more efficient reservation facilities, etc.
- Faster and accurate re-shelving means patrons can find items where they should be, hence quicker and more satisfying service.
- Height adjustable self-check-in/out tables are liked by children and physically disabled persons who use the library.

4. Conclusion

To summarize, in a few words how automation in the library affects students, an automated library is seen as vibrant and alive. Automation can make the library an awesome place. Next, librarians appreciate automation because of its ease of use. Items can be catalogued using vendor-supplied catalogue records. The internet provides a vehicle for using electronic search of massive databases and adding professional cataloguing into the library database within the scan of a barcode or with very few keystrokes. Librarians can circulate items with ease and have an accurate account of each student's activities. Today's students are very savvy about computers.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

References

[1]   Goncalves, M., Moreira, B., Fox, B., and Watson, L. (2007). "What is a good digital library, "a quality model for digital libraries. Information Processing and Management, 43(5), 1416. Retrieved March 28, 2016, from Expanded Academic ASAP.

[2]   Kragler, S., and Nolley, C. (1996). Student choices: Book selection strategies of fourth graders. Reading Horizons, 36(4), 354–365.

[3]   Krashen, S.D. (2004). The Power of Reading: Insights from the Research (2nd ed.). Westport, CT: Libraries Unlimited.

[4]   Reuter, K. (2007). Assessing Aesthetic Relevance: Children's Book Selection in a Digital Library. **Journal of the American Society for Information Science and Technology**, 58(12), 1745-1763, Retrieved from DOI: 10.1002/asi.20657

[5]   Rible, Henry (2011). Why Libraries are Relevant in the Digital Age. Winter California Polytechnic State University, 1-27.

[6]   Swartz, M.K., and Hendricks, C.G. (2000). Factors that influence the book selection process of students with special needs. **Journal of Adolescent and Adult Literacy**, 43(7), 608–618.

[7]   Todd, R., and Kuhlthau, C. C. (2004). School Libraries Work! The Ohio Research Study Scholastic Research Foundation.