

Project Title : Digital Library Management System

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Abstract

With the advancement of technology, it is imperative to exalt all the systems into a user-friendly manner. The Library Management system (LMS) acts as a tool to transform traditional libraries into digital libraries. Internet and Distributed Network System created scope for research in the area of information system and its related fields. Digital Library, one of the most recent development in Library and Information Science, which help its user to seek information through web browser. Digital Library is organized assortment of information, with its supported services and a place where the information is kept in digital format and can be retrieved over a networks. Since last one decade researchers are focusing on the users of Digital Library to develop more efficient and effective system to provide quality service to users. The aim of this paper is to provide literature on Digital Library with respect to its users that may be helpful for future research. Through LMS the librarian can find the book in the bookshelves. The LMS is designed with the basic features such as librarian can add/view/update/delete books and students' details in it. Once he/she ingress into the system they can modify any data's in the database. The paper discusses about the users centric approach in the context of Digital Library. Researchers are working on the system upgradation by using wireless technology to connect with end users directly with libraries. Further, other areas such as user's Perception, Attitude, Adoption and Satisfaction with respect to digital library are also discussed

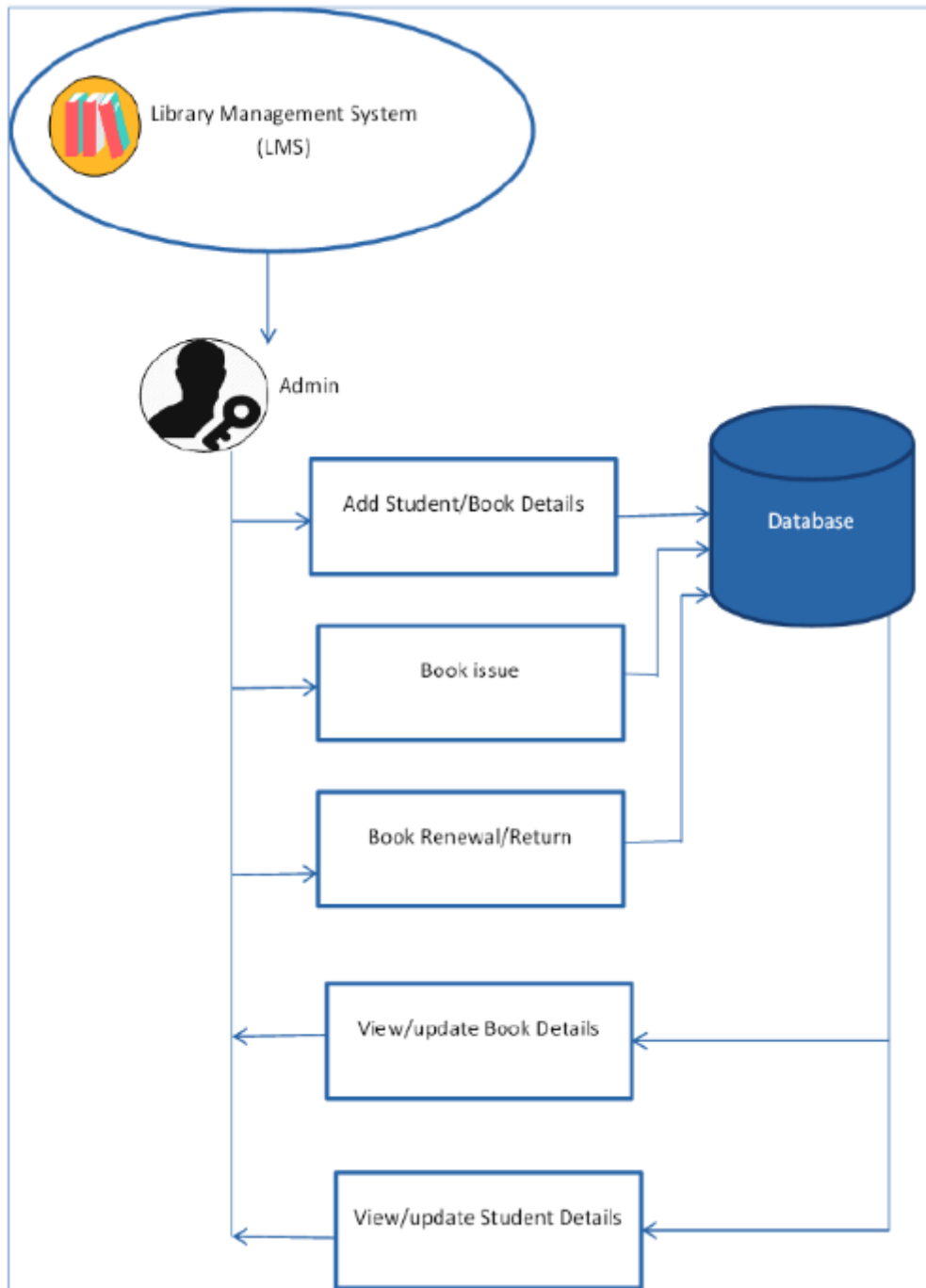
Introduction

Significant changes seen by society through the transmission of information around the globe and it is accountable to the evolution of information technology. Now it is possible to archiving and accessing knowledge in the digitized form besides preservation of traditional knowledge due to use of information technology. Demand for electronic information increasing day by day and at the same time traditional format of library becoming more and more expensive and complex to maintain. Now it is time for libraries to capitalize these challenges and meet demands and expectations of digital users. Libraries has to redesign their services to create value addition to satisfy the user's community.

Digital Library

Digital Library is a source that rebuild the knowledge and supports of conventional library in digital form. Digital Library is organized assortment of information, with its supported services and a place where the information is kept in digital format and can be retrieved over a networks. It comprise of digital contents which interconnected by establishing link, metadata or simply query based relationship and software which may use basic pages in HTML or based on database management system. It can be interpreted on the basis of above definition that a single web page or huge collection mass digital information is not a digital library. Here, it is important to note that digital libraries are not going to replace conventional libraries but rather digital libraries are the future of conventional libraries (Seadle, 2007). Basically, digital library is required technological support to link the resources of many services that are disseminated to user. Collection of information is not restricted to document storage but it is extended to digital artefacts than can only be distributed in digital formats.

Methodology



Block diagram

Review of Literature

This section of the article discuss about the research related to user's experience with digital library. This may be helpful to understand user's opinion, attitude, satisfaction and service experiences with digital library which can be further considered for enhancing user's satisfaction towards the use of digital library.

As library's role is to identify, evaluate, select, organize, and describe resources, as well as preserve, disseminate, use, and reuse resources and information, library's role is getting more complex today than ever. Ekere et al (2016) study the perception of users towards digital library facilities, resources and services and found that users are highly satisfied with it. Users are highly aware and satisfied about the digital library resources such and WWW, WIFI and search engines compare to online databases, portals, online abstract, video CDs, CD-ROMs, and online indexes and abstract. Asad Khan (2016) investigated the factors that influence the adoption of Digital Library among research students. The findings revealed that Interface characteristics influence cognitive response which predict student's intention of using digital library. Whereas navigation, individual differences and system characteristics significantly affected the ease of use. Usefulness is directly affected by system characteristics and system quality. Finally, it is found that usefulness have highest effects on digital library usage intention. Xianjin et al (2015) worked on Flow experience with respect to Mobile Library and try to compares perception of user's with mobile libraries and web digital libraries with respect to flow experience. Where flow experience defined as best experience about an activity that can be done by comparing perceived skills and perceived challenges. Study reveals that more users experienced flow in using web digital libraries than mobile libraries. Yuangen and Zeng (2014) worked with customer churn rate and it is the rate of customer discontinuation with digital library service. Study found that customer churn rate of the given library is very high and same with churn hazard in initial three months after customer's registration on the web site of the library. Xianjin et al (2014) investigated the

effects of user's perception towards print and digital resources in terms of usage, usefulness and ease of use. There is a significant effect of the characteristics of user's such as gender, age field and experience on perception of users with respect to usefulness, usage and ease of use. Yalan et al (2014) examined quality of digital library which define as the quality of information quality of system and overall service quality of digital library. The compression of user's perceptions towards virtual communities and digital libraries have been done understand the actual nature of e quality perceived by the users. Based on the user's perception study found that digital libraries provide better information, system and service quality than virtual communities.

Ahmed (2013) study the usage pattern of digital information resources and satisfaction with university resources by the faculty members. It is found that faculty members are dissatisfied with current e-resources by the university. Service related issues are the main reason for dissatisfaction such as limited title and access to past issues, They identified limited number of titles, limited access to back issues, difficulty in finding information, inability to access from home, limited access to computers and slow download speed as major constraints. However, poor infrastructure and limited access to these resources is the main reason for dissatisfaction. Chang (2013) study user's behavior intention towards using mobile library application by applying unified theory of acceptance and usage of technology (UTAUT) with task technology fit model. Effort expectancy, social influence, facilitating conditions and performance expectancy influence the behavioral intention towards mobile library application. Task technology model have moderating effect on behavioral intention. Ming-der et al (2012) research scholar are frequent users of digital resources of library in this regard this study investigated usage pattern, search behavior of graduate students and perception towards digital resources. Study reveals that students are using digital resources during thesis writing and science and technology student consider it as the most important for their research compare to other disciplines. Less number of students are using metasearch and alter services to collect update information. Lorraine Paterson and Boon Low, (2011) found that students has higher acceptance of mobile library services. Anna (2008) indicated that user's perception is defer by the institute to institute and the services they offered. Further, users have positive attitude towards digital library but at the same time most of them are

unaware about various services offered by the digital library. It is also found that interface considered to be an important factor to use digital library. Nov and Ye (2008) employed technology acceptance model and support that TAM has explanatory power to predict intention. This study found that resistance to change is the important determinant of perceived ease of use.

Nor et al (2006) users have positive perception towards wireless application in the context of library and information services and most of the users responded affirmatively to be a part of wireless services if offered. Enrique (2005) reveals that the satisfaction with respect to digital library is still the area in which improvement required. A more deep study shows that from a Cognitive style perspective, Intermediate users are satisfied with the interface, but in Filed Dependency and Field Independency, users expects some improvements, especially help to operate the system. This is also true from a gender approach, where females are more dissatisfied than males, mainly because of the lack of help. Finally it is found that as level of expertise increases the user's satisfaction is decreases. Conclusion It is high time for libraries in India to shift from traditional model to digital model. This study provide the highlights about the key areas in which researcher are doing research with respect to Digital Library and user experience to provide future scope for further research in this area. Majority of studies, which included in this paper, are related to Adoption, Perception, Attitude and Satisfaction of user towards Digital Library services. Whereas, Flow Experience and Equality aspect of Digital Library has also been studied out by the researchers. Mobile library is emerging as a new concept and showing high rate of acceptance among users where libraries provide content browsing through mobile application. RFID are used these days in library to track the books as we can locate the book through it. The shelf antennas are optimized in such a way as to maximize tag readability and minimize electromagnetic pollution in the vicinity of the cabinet.

Conclusion

It is high time for libraries in India to shift from traditional model to digital model. This study provide the highlights about the key areas in which researcher are doing research with respect to Digital Library and user experience to provide future scope for further research in this area. Majority of studies, which included in this paper, are related to Adoption, Perception, Attitude and Satisfaction of user towards Digital Library services. Whereas, Flow Experience and Equality aspect of Digital Library has also been studied out by the researchers. Mobile library and technology such as RFID are emerging as a new concept and showing high rate of acceptance among users where libraries provide content browsing through mobile application

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