A good change in library system for university students

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Abstract:

This paper reviewed articles on library system that has previously studied by researchers which focused on changes and improvement by implementing library system. Articles from 2014 to 2021 were considered to be reviewed. Most of the literature reviewed focuses on how the library's system changes to meet the requirement of university students. The databases used for searching articles relating to the library's system are Google Scholar, Emerald Insight, and Science Direct. Other articles are also searched from other trusted websites. The articles were chosen and identified mostly via the use of search phrases or keywords such as "information management," "library information system," "library system," "IMS," and "university library user". A review on previous studies shows that the library system changes the way people search, use and manage libraries' information and sources. The improvement of the library system provided a better change toward library management and satisfied its user. In this research, many types of library systems and their improvement are found and studied by researchers. In conclusion, we need to enhance the library system in order to better assist library management and provided more beneficial features to its users. This study focuses on literature review in this area. We compared published articles in the field of library systems from library databases and other resources.

Keywords: Library, Library system, University, Students

1.0 Introduction

The library system in many years has stayed the same in universities especially universities in Malaysia. We have referred to this one particular article to completing our article regarding our topic: a good change in the library system for university students. According to TheFreeDictionary (2003) library system or the operating system manages a system library, which is an ordered collection of a computer system that is kept online with a computer system by being stored on a secondary storage device.

The authors remark that "with the popularization of wireless networks and mobile devices, more people now using mobile devices to go online." In addition, many students including teachers, and lecturers now use tablets, PCs and smartphones to read e-books or e-journals rather than go to the library. As a result, electronic resources and digital libraries are turning and becoming increasingly important sources for obtaining the information (Huang et al., 2014).

The problems occur when the library system stayed the same and no paradigmatic shift in the university library system. This problem should not happen because we are living in a fast-paced technology life and the usage of technology everywhere.

Here we stated three objectives regarding the article proposed here:

1) To determine the change in library system will make it systematic to university students.
2) To improve the library system to a systematic library system.
3) To identify what changes will happen and impact to library because of a change of new library system.

There are several problems we face while completing this article. The problems after all starting from the students themselves. The non-technology savvy student has a hard time using the library system, the library is still using the traditional library system and method. Last but not least, the uninteresting library system makes it hard to attract students.

Regarding the problem statement we have mentioned above, the solution that we have discussed and to be implemented in order to solve the problem are library should provide a program about library system literacy for students. To add, the library should upgrade their system to accommodate the latest technology system whilst still using the traditional method and promoting the new library system to students while they are receiving a lecture in class with the hope that it can attract the students' attention towards new library system.

2.0 Literature review

2.1. Library system

The main purpose of any library system is to collect, store, organize, retrieve and make information available to its user. According to Robinson (2017), library systems during this era make a constant shift from mini-computers serving individual libraries and information provision to the World Wide Web (WWW) where billions of information shared and to clients picking up information and sources from almost anywhere as long as there is an internet connection.

According to Manifold (2014), he mentioned the discussion on library systems by another author named Montague (1993). In his paper, Montague (1993) discussed the first library system which is compatible with the available hardware and the software capabilities at that time. This system is very simple, where users can eliminate tedious manual work involved with particular batch processes with only single-function applications.

Other studies conducted by Huang et al. (2015), which explained mobile library service systems. In their paper, they mentioned that old online services provided by libraries are inadequate if their user wants to search information and other resources anytime and anywhere they want. They explained that the main idea of their study is to use the benefits of mobile communication services. From that idea, they develop a system for the library resources of the National University of Tainan Library which was a mobile library service system by adapting the Android open-source code. They also mentioned that students and faculty can easily find information by using this system. This system aimed to provide more suitable and actual information services to users.

Huang et al. (2015) stated that they use Android open source code to produce an application for the mobile library. This application can be used on PCs, smartphones and tablets. This system provided Faculty and students some basic features which the ability to check new book notices, the status of books, and personal book-borrowing, reservation and return records.

Saarti et al. (2015) discussed the joint library system. They said that this joint library system is the new rage in Finnish library automation in 2015. These have been most large-scale developed in the academic libraries that previously use joint library automation systems. According to them referring to Loukkanen et al. (2012), the purpose of this system was to set up a joint system with regular databases for all the libraries in all sectors who are pleased to cooperate in this work. This purpose led to the planning of the possession of a new library system. They claimed that the aim to implement a long-time digital preservation system, automation systems and joint interfaces for all Finnish memory organizations (archives, libraries and museums) which happened to be the recent trend of document dissemination digitalization has led to a national policy.

Other studies conducted by Robinson (2017), mentioning the Open Sources library system in his paper. “The interest in Open Sources was based on the benefit provided in effectiveness in other factors such as virtual learning environments, repositories and research data management, not to mention creating the foundation of many webs and systems implementations which could provide the chances to embed library systems into information and enterprise environments which the traditional ‘black box’ or ‘turnkey’ systems could not”. (Robinson, 2017).

An Open-Source integrated library system (ILS) has been discussed by Avery (2016). The author purpose of the study was to investigate the situations and processes involved in executing and drifting from a proprietary integrated library system (ILS) (Follett’s Destiny) to an open-source ILS (Koha) for a special focus institution. According to the author, most libraries mostly academic libraries do not use open-source Integrated Library Systems, and librarians have different feelings among them concerning open-source systems in spite of living in the situation where people are open regarding the use of open-source ILS systems.

Other researchers also provide research on the integrated library system. In Hastings et al. (2016) paper, they explained the implementation of an integrated library system in Kansas which is a state in the Midwestern United States. Hastings et al. (2016), informed that seven regional library systems were created in Kansas by law in 1965. They said that each regional system also operates freely under its own board and the member libraries also remain administratively self-reliant. Each regional system contains budget-setting and policy-making authority. Kansas relies approximately minimal on state subsidize or membership fees which are quite different to member libraries who receive permits from the regional systems and has tax-levying authority.

According to Hastings et al. (2016), each regional system comes out with services to libraries around its described region which were determined by the board in order to meet the needs of the libraries in the region. The authors mentioned that the services provided have large similarities and obvious differences with all regions. They said that although the services provided are varied, all of the systems provide libraries with grants, consulting, continuing education, and technical support. Some but not all systems provide libraries with interlibrary loans, rotating books, mail-a-book, processing, cataloguing, and other services that can be provided by other systems.

According to Yang (2013), she mentions new library system in that era. The new system has a variety of names, including "library management platform" and "library service platform" (Breeding, 2012), "library management service" (Dula et al., 2012), "web-scale management solution" (Burke, 2012), "Next Generation Comprehensive Library System" (Wang & Dawes, 2012) or more commonly known as the new library system. Five well-known next-generation library systems have been released or are in development which is Kuali Open Library Environment (OLE) from Kuali Foundation and OCLC from OCLC, Intota from Serials Solutions, Sierra from Innovative Interfaces and Alma from Ex Libris. These new systems have a lot in common, but each has its own unique attributes that distinguish them from other systems. All next-generation library systems are RDA compliant. Libraries can add, display, index, and search MARC fields to RDA data. field. In addition to MARC, the new system can also provide other record formats, such as Metadata Object Description Scheme (MODS), Encoded File Description (EAD) and Dublin Core.

2.2. Changes of implementing library system.

Differences between the backward technology in library management and the new library system implemented are big. Improvement in the library system gives a beneficial change to the library management. There is a lot of research mentioning the improvement of library management by implementing a new library system.

Research by Huang et al. (2015) mentioned the effect of implementing a new library system which is a mobile library system. This system is implemented for academic libraries and used by college students. From the finding of the study, the author mentioned that the students think that the mobile library service system was helpful in term of information searching. The college students who participated in the survey of this study perceive that the focal mobile library service system functioning to aid them in instantly searching for information or resources they wanted. This means that students are very satisfied with the system, as they are willing to use and recommend it to others. This new system implementation provided a good change to library management and gain satisfaction from their user.

Implementing integrated library system (ILS) provide a good improvement to library management. According to Hastings et al. (2016), Integrated Library Systems are an unfamiliar system to some of the librarians in the new institution. Central Kansas Library System Consultants highlight that unique features, using basic processes as opposed to attractive features, and ease of learning are the most important criteria for rating. They explained the aim of this integrated library system is for every library to be able to participate in statewide resource-sharing with the statewide catalogue. So, in other words, they implied that by implementing integrated library system, all libraries in Kansas can share their information and resources with each other.

3.0 Methodology

This paper is to describe a good change in the library system for University students and evaluate the methods used in the planning of the new library system. This is based on the findings of this study, which utilized content analysis methodologies. For this literature study, articles from 2014 to 2021 were considered. Most of the literature focuses on how the library's system changes to meet the requirement of university students. The goal of picking these main topics was to highlight how the library system changed year after year to ensure that it met the needs of the students. The databases utilized to look for papers relating to the library's system were Google Scholar, Emerald Insight, and Science Direct. The articles were chosen and identified mostly via the use of search phrases or keywords such as "information management," "library information system," "library system," "IMS," and "university library user". These articles were chosen as resources for this article.

Nowadays, students need to adapt to new learning methods such as ODL (open distance learning). In this situation, the library's system plays an important role for students who want to retrieve data from home. A new library system opens new opportunities for innovation and quick change, which is especially important in the higher education context. Libraries are one of the main places for students to collect information during ODL, so the old system needs to be changed to give a complete library system for all forms of data.

4.0 Results

4.1 The Respondents Profiles Analysis

The authors remark that “structural equation modelling was adopted to test the cause-and-effect relations among the constructs in the research model, with the partial least square method used as the analysis tool,” (Huang et al., 2014).

The authors state respondents’ details are presented and males accounted for 47.1 per cent of the respondents and females 52.9 per cent,” (Huang et al., 2014).

The authors remark “with regard to age, 38.8 per cent of the respondents of the respondents were 21-30 years old, while those younger than this accounted for 61.2 per cent,” (Huang et al., 2014).

The authors state that “only 9.7 per cent of the respondents were in the second year or higher of graduate school, and 2.4 per cent were in the first year of graduate school, while senior students (including those in the higher grades, but not studying in graduate school) accounted for 13.2 per cent, junior students for 21.8 per cent, sophomores for 15.5 per cent and freshman for 37.4 per cent of the total,” (Huang et al., 2014).

According to Huang et al. (2014), “with regard to the students’ colleges, education accounted for 27.2 per cent, environmental sciences and ecology for 5.3 per cent and performance and visual arts for 1.9 per cent”.

The results are shown above with respondents’ profiles analysis, reliability analysis and validity analysis. Relating to these three analyses, the objectives that have been stated by this article one of which is to determine the change in library system will make it systematic to university students. In respondents’ profiles analysis, the highest frequency and per cent are from freshman grades with a frequency of 77 and 37.4 per cent rather than other grades.

4.2 Reliability Analysis

According to Huang et al. (2014), “the Cronbach’s alpha coefficient was used to test the internal consistency of each construct. The greater the value is, the greater the intercorrelations of an items’ construct are, which indicates higher internal consistency. It shows coefficient ranges from 0.809 to 0.919, and thus, the items in this study have good internal consistency and a high level of reliability”.

The second objectives state that to improve the library system to a systematic library system. Believe with such a systematic library system could bring a new paradigm shift to the library and for the people who go to the library. Under the reliability analysis, it shows that Service Quality (SQ) is the highest and System Use (SU) the lowest among all.

4.3 Validity Analysis

The authors remark the "when testing the same construct item, the higher the intercorrelation is, the better the convergent validity of the measurement is. It shows that in this study, this ranges from 0.876 to 0.943, which is greater than the suggested value, thus indicating good internal consistency of all the items," (Huang et al., 2014).

According to Huang et al. (2014), referring to Fornell et al. (1981), "also suggested that the value of the average variance extracted should be greater than 0.5, and shows that, these ranged between 0.640 and 0.805. The results thus indicate that all the construct items in this study had good convergent validity".

The last purpose and objectives are to identify what changes will happen and impact the library because of a change in the new library system. Once a new library system is being adapted to, for sure the changes is noticeable and must be informed for everyone of the changes. According to the research results states by (Huang et al., 2014), the average variance from table validity analysis shows that the highest among all is Service Quality (SVQ) with 0.805 average variance extracted and the lowest among all is System Use (SU) with just 0.604 average variance extracted.

As stated in the introduction regarding the occurring problems statement we are facing, the problems which started from the students itself, we will make sure to solve it with the students itself and guiding the non-technology savvy students to adapt with the new technology system, and last but not least, ensuring the library system looks interesting in the students' eyes by organizing workshops regarding the library system for free to all students.

5.0 Conclusion

For many years, the library system in universities, particularly in Malaysia, has remained unchanged. The library system was useful when students were looking for books or relevant information. The enhancement of the library system resulted in a better shift in library administration and delighted its users. Many different types of library systems and their improvements are discovered and explored by experts in this study.

The change of the library system will make it easier and more systematic for students to retrieve the information. the new system should be able to attract students to use it because the new system will be more interesting and easier for non-technology savvy students. This is proven when the first objective of this paper, which is to determine the change will make it systematic to university students get the higher frequency and percent from the students.

The new library system will be more efficient for students since the system is user-friendly. Even the non-technology savvy student will be easy to understand the new library system. The systematic library system will attract new students to come to the library since it is easier to use. To fulfil the second objective in this paper, which is that to improve the library system to a systematic library system, the libraries need to upgrade their system with the latest technology system.

Lastly, to achieve the last objective, which is to identify what changes will happen and impact the library because of a change of new library system. Libraries need to keep promoting their new library system to the students. Library also can provide a program about library system literacy to students, so that students can understand more about the new library system. Finally, we need to improve the library system so that it can better help library administration and give more useful services to its users.

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