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Library Automation System in Library University of Sebelas Maret Indonesia: Migration From UNSLA to SLiMS

Dessy Harisanty
Fakultas Vokasi, Universitas Airlangga, dessy.harisanty@vokasi.unair.ac.id

Ellia Shafira
Fakultas Vokasi, Universitas Airlangga, elliashafira1@gmail.com

Salsabiela Hasna Isbandy
Fakultas Vokasi, Universitas Airlangga, salsabielaisbandy@gmail.com

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ABSTRACT

The purpose of this study is to determine the problems that occur when the migration of library automation systems in the University of Sebelas Maret (UNS) Library, such as the causes, constraints, and advantages and disadvantages of the SLiMS automation system. This study was used descriptive method. Data collection method used in this study is the interview and observation. The obstacle faced by librarians in implementing SLiMS is that librarians who are not yet accustomed to need time to learn. Overall the implementation of the SLiMS automation system at the UNS Library went smoothly, although there were a number of problems, the library was able to overcome the problem. The results of this study revealed that the migration of the Library automation system to SLiMS was carried out to support the increasingly complex needs of users.

Keywords: automation system, SLiMS, UNSLA, library, services, information system

Introduction

Society and information are inseparable. Information is an important aspect in supporting all human work. Moreover, now the digital age has become one with the current condition of society. This is triggered by the characteristics of people who want to obtain information quickly, precisely, and accurately. Through increasingly sophisticated technology, all information needs can be met. Not only searching for information, they can also share information with each other. With this phenomenon, the term Information Society appears. Information society is a state of society where the production, distribution and manipulation of information becomes the main activity (Damanik, 2012). The information society itself can be said as a society that symbolizes the changes brought about by technological advances and globalization towards the end of the 20th century. This era is characterized by speed and accuracy in the production, transfer, access and use of knowledge (Gammayani, Nabawi, & Alfatih, 2015). According to Rodin (2013) states that there are several expressions in the face of this information growth, including (1) information explosion or information explosion; (2) the fload of information or flood of information; (3)

bombarded by information or bombing by information; and (4) information overload or too much information.

In line with this, the library as an information management body is required to be able to manage the information explosion that is happening right now. A librarian must be able to dig up pieces of information so that they can be applied in library management. A librarian must also always have up to date, interesting and accurate information so that the library user is more interested in the information that is owned by the library, even though there is now internet. A question arises "Do we need a library if we now have the internet?". According to IFLA (2003), even though we currently have internet, a library is still needed. Although a lot of information is available on the internet, many of them are false information and are not well organized. In fact, some of them are of course dangerous information. Much authoritative information is only available in return for payment. Thus, users need to access material through libraries that have skilled staff to search information efficiently, are able to identify the original site and can get access to paid sources through licensing. A librarian must also master information technology well in order to secure the library information system. Based on research Okike & Adetoro (2019) regarding the influence of librarians' technological abilities in securing the University of Nigeria Library information system states that library users are more skilled in the use of IT so as to enable them to act unwanted things on library information systems. The security of library information systems can be achieved and maintained if librarians improve their skills in information and communication technology so that library users like that even when they have the skills to threaten the system cannot do so because the system is guaranteed by the librarian.

In line with this, the library as an information management body is required to be able to manage the information explosion that is happening right now. A librarian must be able to dig up pieces of information so that they can be applied in library management. A librarian must also always have up to date, interesting and accurate information so that the library user is more interested in the information that is owned by the library, even though there is now internet. A question arises "Do we need a library if we now have the internet?". According to IFLA (2003), even though we currently have internet, a library is still needed. Although a lot of information is available on the internet, many of them are false information and are not well organized. In fact, some of them are of course dangerous information. Much authoritative information is only available in return for payment. Thus, users need to access material through libraries that have skilled staff to search information efficiently, are able to identify the original site and can get access to paid sources through licensing. A librarian

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The library as an information provider institution has adopted technology, for example with the use of card catalogs that have changed to the use of OPAC (Online Public Access Catalog), the use of library automation system applications, and others. The advantage of libraries in adopting technology is to facilitate librarians in managing data, improve the quality of library services, make it easy for users and expand networking. Information technology applications that are applied to libraries and documentation and information centers, can generally be classified into 4 main areas, namely library housekeeping (maintenance / library), information retrieval (information retrieval / information retrieval), general purpose software (software for various kinds of necessities), library networking (library collaboration network) (Ali, 2015). The use of library automation system applications provides many conveniences, both for librarians and librarians. The increasingly diverse information needs of the library are driving the library to update or upgrade the application of the automation system being applied. The Sebelas Maret University Library is one of the libraries that has used the library automation system application to facilitate the management and collection of collections for librarians and users. In general, the application of technology in the UNS UPT Library was very good. Initially, the library automation system used was UNSLA (UNS Library Automation). UNSLA is a library automation system made by the UNS Library UPT. However, because the software is not open source and the features of UNSLA cannot be developed or updated, so the library migrates the automation system from UNSLA to SLiMS (Senayan Library Management Systems). Therefore, the author is interested in making the topic in this article, bearing in mind that the migration of the automation system is a hot topic among librarians of UPT Library UNS. The formulation of the problems discussed in this article are: (1) What factors cause the migration of the UNSLA automation system to SliMS (2) What are the obstacles faced by librarians regarding the migration of the automation system (3) What are the

advantages and disadvantages of the implementation of the automation system SLiMS, both for librarians and users.

Research Method

This study uses descriptive methods. The researcher wants to uncover the problems that occur when the migration of library automation systems such as the causes, constraints, and advantages and disadvantages of the SLiMS automation system. Data collection method used in this study is the interview method and observation. Informants in this study are librarians who act as (1) SAT Staff or Self Access Terminal, (2) Return Service Staff, Thesis Service Staff, and Service Staff Reference.

Result

Circulation

This menu in UNSLA is used to borrow and return books. For borrowing books, it is done by scanning the barcode of the book located on the front page or back page of the book and scanning the barcode of the member cards. UNSLA display appears member info, and borrowed book info. In addition, UNSLA also has a history of borrowing books and the number of books that have been borrowed. The steps taken when returning books are the same as borrowing books. The difference is that after completing a return / renewal transaction, the user receives a return receipt. If the library user returns the book, the user will be fined and in UNSLA the amount of the fine to be paid is written.

The circulation features of SLiMS are more complete than those of UNSLA. If on SLiMS, the circulation submenu includes lending and repayment, lending rules, loan history, list of delays, and reservations.

Member

The Members menu functions to edit members, add new members, and bring up a list of members and their biodata. If the librarian wants to add new members, the librarian must select the "Add New Member" button. Librarians can also write notes to each member. In the menu self data has been included in each library member and librarian can edit the biodata. Menu on members includes a list of members, print membership cards, print library freely, majors tables, levels tables, and member status tables. The member features of SLiMS as a whole are almost the same as UNSLA. This feature is used to add member data, edit member data and display library member data.

Catalog

The catalog menu at UNSLA is used to view the state of the book. The book categories on this menu include good, repaired, borrowed, damaged, lost and processed. If you want to change the state of the book, then select the book category first. The next step is to scan the barcode of the book and information from the book appears like the bib number, call number, barcode, book title, and the state of the book. There are no features in SLiMS.

Book Input

In the book input feature, librarians must first select the book list submenu and click the "Add" button if they want to input the bibliography. If the librarian will input the data, it should fill in the bibliographic data on the form provided. After filling in the bibliographic data, click "Save" and the data input is successful.

If in UNSLA book input is done on the catalog menu but on SLiMS book input is done on the bibliographic menu. The bibliographic menu features on SLiMS are more complete than UNSLA. On the bibliography menu there are submenus including a bibliography list, add a new bibliography, a list of copies, a list of exiting copies, catalog copy, label printing, barcode printing, MARC export, MARC import, and catalog printing.

Stock Taking

The stock taking menu at UNSLA is used to separate books that are in good condition and damaged. The steps that must be taken to conduct stock taking are scanning a barcode on a book by selecting stock take at UNSLA. Then, the data related to the collection such as bib number, call number, book title, author, city of publication, publisher, year of publication, and others. In the stock taking display, there is also information related to the date of the stock taking. For books that have never done stock taking, it will be written that the book has not taken stock taking. There are no features in SLiMS.

Online Public Access Catalog (OPAC)

The UNS Library online catalog can be accessed by users through the link https://unsla.uns.ac.id/. Library users can browse library materials in the UNS Library based on title, author, and subject. After that, users choose the type of collection they want, such as books, theses, TA, theses, dissertations, and others. The online catalog at UNSLA provides information regarding the number of titles and copies of library materials grouped by class

and field number, so that library users can view the list of collections owned by the UNS Library.

OPAC on SLiMS can be accessed by users through the link https://unsla-dev.uns.ac.id. OPAC on SLiMS displays information related to the title, author's name, and the availability of collections on the shelf. OPAC on SLiMS can do simple and specific searches. For a simple search, users can directly type keywords in the search field, while for specific searches, users enter keywords including by title, author, subject, ISBN / ISSN, collection type, GMD, and publish year so that users can narrow the search results.

Discussion

Factors Causing Migration of the UNSLA Automation System to SliMS

According to Hamim (2012) libraries are actors who have an important role in the collection, processing and distribution of information that must deal with information technology. Library automation system is an application used to facilitate librarians in carrying out their duties in the library which includes system management and library management activities (Azwar, 2013). According to Patil (2013) Library Automation System is the use of word processing machines to carry out library activities such as acquisition, cataloging, and circulation or in short is the use of computers to do work related to library services. Based on the results of the study Aprilianita (2013), the application of the automation system has a positive impact in the Muria Kudus University Library which can accelerate the performance of circulation services to three times compared to circulation services manually so that visitors do not need a long time in their services.

In determining library automation system software, librarians need to study first, especially related to how far the software that will be used can meet the needs in the library for long-term interests (Pangestika & Dewi, 2018). In addition, librarians must also pay attention to the needs of the library itself, because each library has different needs. According to Dewi (2019), there are several considerations that must be considered for choosing library automation software including (1) Reliability, meaning that the software to be used must be able to handle work and store large data because collections in the library always increase over time. (2) Economical, meaning that the software to be used has a purchase price that is in accordance with the quality in its use in the library. (3) Flexibility, meaning that the software used can be downloaded on all types of operating systems and can be developed

better. (4) Simple, meaning that the software used has menus that can represent all activities in the library.

Libraries migrating automation systems are usually based on a certain reason. Based on the results of the interviews, the migration process of the automation system at the UNS Library was carried out to support the increasingly complex needs of users. In a previous study conducted at the Muhammadiyah Surakarta University Library (UMS), researchers revealed that the reason that the Muhammadiyah Surakarta University Library (UMS) changed the automation system called Library to Koha because the features in the old automation system were incomplete and the needs of the library were still not able fulfilled (Husnun, 2012). In addition, the library automation system at the UMS Library is a system created and developed by UMS Library IT staff, so that in its application this automation system must always be developed routinely to suit the needs of the library that is growing. However, this could not be implemented properly because IT staff felt overwhelmed to develop the automation system they had created. This condition is also in accordance with the implementation of the UNSLA automation system (UNS Library Automation) in the UNS Library that the development of the UNSLA automation system cannot be done by librarians, but only people who make UNSLA. According to Maulidia & Laksmi (2017), every librarian must have the skills and self-development in managing the library in order to provide excellent service to users. So, if librarians want to do feature updates, then they have to call in an expert, so this is considered less effective and efficient. Therefore, the UNS Library replaced the new automation system, SLiMS (Senayan Library Management System). The UNS library chose SLiMS because SLiMS is an open source software and has communities in various regions, so that its development can be done regularly.

Obstacles faced by Librarians on Migration Automation Systems

The implementation of the automation system in the UNS Library using SLiMS encountered several obstacles, namely librarians were not accustomed to operating SLiMS in library management activities, so they still needed time to learn. In addition, the obstacle faced by librarians in developing SLiMS in the UNS Library is that the server is still in the adjustment stage. This happened when the librarian served the librarian in the return service where SLiMS did not respond to what was ordered by the librarian, so the book return transaction was stopped for a while until SLiMS returned to normal. This is natural because the data transfer process from UNSLA to SLiMS has not yet been completed. Other studies also revealed something similar to the incident, precisely at the Semarang Shipping

Polytechnic Library, namely the interruption in the server when operating SLiMS, which is due to the Windows Server used, namely Windows Server 2012 R2 does not support to operate SLiMS (Wahyudi, 2017).

Seeing the conditions described above, the efforts made by the librarians in the UNS Library are to conduct training for librarians regarding the socialization of the use of SLiMS. Through this training librarians are expected to be able to run SLiMS to support their work in the library. In addition, the efforts made by the UNS librarian if the server used to run SLiMS experienced several problems, namely contacting a team of experts or interacting with the SLiMS community in order to solve problems that occur in implementing SLiMS in the UNS Library.

Strengths and Weaknesses for the implementation of the SLiMS Automation System

According to Mahedy (2015) the advantages of SLiMS include (1) SLiMS can be downloaded for free (2) SLiMS qualifies as a library automation system (3) SLiMS is developed with PHP and MySQL so that the programming language is easy to understand and possible to develop. In addition, SLiMS has additional features that are useful for sharing collections to social media or Google accounts and has a chat feature that facilitates online communication between librarians and librarians if there are obstacles in using SLiMS (Arnomo, 2016).

In every automation system not only has advantages but also has disadvantages. According to Wahyudi (2017) in implementing SLiMS as an automation system in the library still has some shortcomings including (1) not all web browsers can run SLiMS perfectly. The recommended browser for using SLiMS is Mozilla Firefox. (2) upload facility or upload files on SLiMS is not equipped with the division of file access authority, meaning that files that have been uploaded on SLiMS can be accessed by everyone. Based on a study entitled Comparison of SLiMS and ELiMS circulation service features of the Adab and Humanities Faculty Library with the Central Islamic State University Alauddin Makassar Library that implementing SLiMS has shortcomings in circulation services including (1) librarians must re-login after not using SLiMS within minutes , (2) the process of borrowing and returning books takes a long time because they have to scan the book barcode one by one, and (3) the recommended web browser to access SLiMS is Mozilla Firefox (Arslindasari, 2017).

Based on interviews that have been conducted with UNS librarians, SLiMS advantages are obtained, namely complete metadata making it easier to search on google.

According to Mulyono & Dwijono (2014) metadata is a statement about the value and nature of an object that is used as a source of information and is used to search, describe, access and organize data. The examples of metadata in the context of the library such as book collection metadata. Then the metadata contains a description of the book's bibliographic data which includes the title of the book, the name of the publisher, the name of the publisher, the year of publication of the city, the dimensions of the book, and others. According to the librarian SAT (Self Access Terminal) if the metadata is complete, the database discovery on google is also easier to find, but conversely if the metadata is incomplete, the database is also difficult to find on google. So, for example the UNS Library has 40,000 collections, which can be found on Google only 10,000 collections because the repository uses its own automation system. Another advantage is that the development of the SLiMS automation system is relatively easy because of the many communities.

In addition, SLiMS also won the 2009 ICT Award in the best open source system category. The next plus is that SLiMS is a multiplatform automation system. Higher education institutions in Indonesia use SLiMS more than Inlislite. In Indonesia OneSearch, the biggest contributor is the library that uses SLiMS.

The drawback of SLiMS is that not all browsers can run SLiMS, but if the browser is updated it might be able to run SLiMS. In addition, the shortcomings of SLiMS are related to menu access authority. For example, the diverse and subjective needs of users make the library have to do internal development of the automation system.

Conclusion

The application of SLiMS in the UNS Library has run smoothly. Although some librarians have difficulty in operating SLiMS, but over time they are accustomed to SLiMS. From the previous explanation, the reason for the UNS Library to migrate the automation system from UNSLA to SLiMS is to support the increasingly complex needs of users. In addition, the UNSLA automation system cannot be developed by UNS librarians, but only people who make UNSLA. So, if librarians want to do feature updates, then they have to call in an expert, so this is considered less effective and efficient.

The obstacle faced by librarians over the migration of automation systems is that librarians are still not accustomed to operating SLiMS in library management activities, so

they still need time to learn. In addition, the server is still in the adjustment stage so that it makes the service activities in the library hampered.

Libraries choose SLiMS, of course, also know the advantages and disadvantages of SLiMS as an automation system in the UNS Library. The advantages of SLiMS are (1) complete metadata making it easier to search on google, (2) the development of an SLiMS automation system is relatively easy because of its many communities. While the weaknesses of SLiMS are (1) not all browsers can run SLiMS, but if the browser is updated it might be able to run SLiMS. (2) menu access authority, meaning that the needs of diverse and subjective users make the library must carry out internal development of the automation system.

Suggestions that can be proposed for the UNS Library are to continue to improve the ability of librarians, especially in the field of technology. This is done because technology becomes a benchmark to determine the level of library progress. If the librarian is able to use technology to support his work in the library, it will have an impact on the amount of work done and served. In addition, librarians are expected to be able to operate SLiMS as an automation system in the UNS Library so that users' needs are met. The method that can be done is to frequently participate in SLiMS training or participate in the SLiMS community.

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