

ANALYSIS OF THE IMPLEMENTATION OF EPRINTS-BASED DIGITAL LIBRARIES

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Abstract

The aim of this research is to find out the process and obstacles in implementing an eprints-based digital library for the development of an institutional repository in the Mataram College of Tourism (STP) library. This type of research is descriptive qualitative research with a case study approach. Data sources use primary data and secondary data. Meanwhile, data collection techniques use interviews, observation and documentation and data analysis techniques use Data Reduction. Display (Data Presentation), and Conclusion Drawing/verification. The research results show that the application of Eprint was initiated by the Mataram Tourism College (STP) Library so that the Mataram Tourism College (STP) institutional repository was included in the webometric ranking of higher education repositories and to increase webometric ranking of the Mataram College of Tourism (STP) from the aspect of higher education rankings. In implementing EPrints as repository software there are several things that need to be prepared such as hardware, software and human resources (HR) who will operate the repository. Computer servers and networks used in repository management requires large and smooth network bandwidth because repository management with Eprints software is done online. The Mataram College of Tourism (STP) institutional repository contains 4 external entities which have their respective roles and are interconnected with each other, namely the administrator section, the editor section, the student user section, the user section (public). The features contained in this system really help librarians in managing students' final assignments/thesis.

Keywords: *Digital Library, Software Eprints, Institutional Repository*

INTRODUCTION

The development of technology and science in this era of globalization is felt to be increasingly rapid. All of this is the result of increasingly advanced human thoughts, this can be seen from the development of computer science which is growing rapidly every day. The development of technology increasingly supports the development of the dissemination of information through print media that is spread throughout all levels of society. The dissemination of this information can not only be obtained through print media but can also be obtained through electronic media such as television, radio, and the internet/website. In

addition, the increase in information and communication technology at this time has brought very important benefits for the progress of human life. Various human activities that were previously carried out by humans themselves have now been replaced by machine devices that work automatically. In this case, it can be interpreted as building a system aimed at storing documents in the form of text, audio, or video in digital format that is managed with the help of a system, one of which is the institutional repository system. Institutional Repository is a system owned by an institution or educational institution to collect, manage, preserve and disseminate scientific materials resulting from the work of academics in digital form such as final reports, theses, dissertations, KKN reports, internship reports, teaching materials, and so on which can later be easily accessed again to be reused in supporting academic and research activities as reference material. In the history of research in Indonesia, the subject of repositories has been widely published, especially research involving all repositories in Indonesia such as the results of research conducted by Farida et al (2015) in (Asmad et al., 2018) entitled - A Concept of Higher Education Model of Open Access Institutional Repository in Indonesia Academic Libraries: Viewed from Knowledge Management Perspective.

Meanwhile, the number of universities in the West Nusa Tenggara region based on the Ministry of Research and Technology's Higher Education Database is 61 universities. So this research needs to be developed through development research with different research concepts and methods and focuses on analyzing the development of institutional repositories in the Province of West Nusa Tenggara (Ridwan, 2023).

Institutional repository can be applied to the Tourism College (STP) which is one of the private universities located in the city of Mataram, West Nusa Tenggara, has 3 leading study programs, namely, the S1 Tourism study program, the D3 Hospitality study program and the D3 Travel Study program from all study programs have approximately 1000 students from each class, each year graduating 150 to 200 graduates. From the results of the researcher's observations in the process of collecting theses or other scientific works produced by the academic community, it is still done by burning files in the form of CDs which will later be submitted to the library by attaching a hard copy of one copy which will later be arranged on the library shelves according to the type of collection. Thus, if at some point the collection is needed, it will be searched again one by one, so it takes a long time and often loses, damages and there is no data backup.

RESEARCH METHOD

This type of research is qualitative descriptive research. Qualitative research aims to understand the phenomena that occur directly which can provide a detailed description in descriptive form with a case study approach, namely a comprehensive, intense, detailed and in-depth study and is directed as an effort to examine problems regarding the application of eprints-based digital libraries for the development of institutional repositories at the Mataram Tourism College (STP).

The approaches used in this study are, the Managerial Approach or more commonly known as the management approach is a systematic approach, because its management is orderly in involving integrated elements in the process of building a digital library. Pedagogical Approach, namely an educational and family approach to the object of research so that they feel comfortable in providing the data needed. The data sources used in this study, namely primary data, are data sources obtained directly through interviews, observations and direct

documentation by the author and secondary data comes from literature studies in the form of books, research results, journals, print media, graphs, statistics and other documents related to this research which are complementary to primary data.

Related to the data collection techniques used in this study, using the field research method, namely writing that is done directly on the object being studied by means of interviews, observations and documentation. This study uses tools (instruments) to help researchers carry out the data collection process and are able to understand the relationship between the facts found in the field (Sugiyono, 2017:150). The research instruments used in this study are interview guidelines, Tape Recorder (voice recorder), and cellphone camera. The steps in data analysis used in this study are Data Reduction, Data Display, and Conclusion Drawing/verification.

RESULT AND DISCUSSION

Overview of Repository Implementation at STP Mataram

The implementation of Eprint began with an initiative from the Mataram Tourism College (STP) Library so that the Mataram Tourism College (STP) institutional repository would be included in the webometric ranking of university repositories and to increase the Mataram Tourism College (STP) webometric ranking from the aspect of university ranking. This study will analyze a repository system to improve library services in managing digital collections of final assignments/student scientific papers so that it can facilitate the search for scientific papers in the Mataram Tourism College (STP) Library. The architecture of the repository information system using EPrints at the Mataram Tourism College (STP) library has a software architecture as shown in Figure 1.

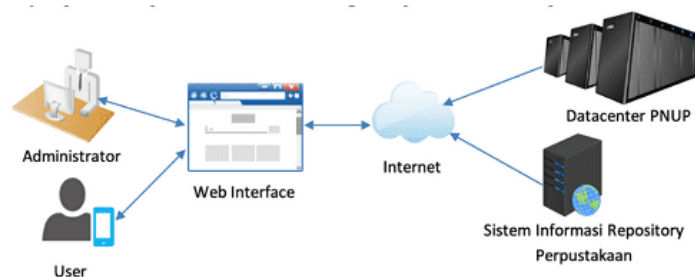


Figure 1. Repository System Architecture Diagram STP Mataram Library

In implementing EPrints as a repository software, there are several things that need to be prepared such as hardware, software and human resources (HR) that will operate the repository. The server computer and network used in repository management require large and smooth network bandwidth because repository management with Eprints software is done online. In addition to the server computer and internet network, very large storage is also needed because the repository contains many documents of the institution's academic community.

Global System Modeling

To describe the system to be designed, it is necessary to determine the user, input direction, process and output that will be carried out by the system so that the system runs according to its flow using a context diagram. The following is a global context diagram image.

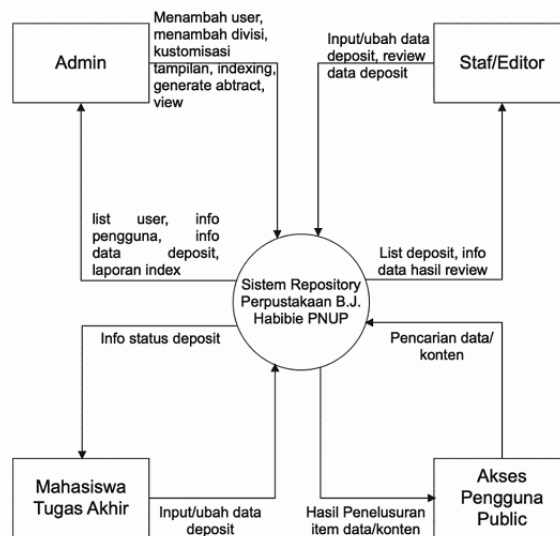


Figure 2. Process Modeling (Context Diagram)

In the context diagram system modeling image, it is a depiction of data flow that has one process with several external entities whose data flow goes to and from the system. The library repository system process of the Mataram Tourism College (STP) is a part that functions as a processor of instructions given to the system, data regulation and providing output to entities. Here there are 4 external entities that have their respective roles and are interconnected with each other, namely the administrator entity, the editor entity, the student user entity, and the user (public) entity. The roles of these external entities are as follows:

1. The administrator entity functions as an entity that can configure the management of the repository system as a whole, starting from creating new users, managing deposits, customizing, creating divisions, types, indexing, generating abstracts, generating views, conducting data reviews and others.
2. The editor entity functions as an entity below the administrator level where access rights are limited, such as examples related to managing deposits, data reviews limited to permitted divisions and so on.
3. The Student User Entity (Final Project) functions as a user entity that can only perform the function of inputting data deposits and monitoring the status of the data deposits made.
4. User entities (public) function as entities outside the system that can only request repository data based on searches performed on the repository system.

Process Flow Modeling

In this modeling, it is a modeling that involves components starting from students as users to send final project/thesis files to the Mataram Tourism College (STP) library repository independently without the help of library staff/librarians. Furthermore, the editor from the library staff verifies the data entered into the repository. The process flow can be seen in Figure 3.



Figure 3. Process flow for independently uploading final project/thesis data to the repository

Repository Implementation

Implementation of eprints-based digital library as an institutional repository carried out at the Mataram Tourism College library. Testing is carried out to ensure that the system has been running properly. The implementation is as follows:

1. Main Menu Display

This page is the main page when the user opens the dashboard utilization system of a system. The login menu is also used as monitoring of stored data. The login menu display consists of username and password input, and the sign in button functions to enter the system. The main menu image can be seen in Figure 4.

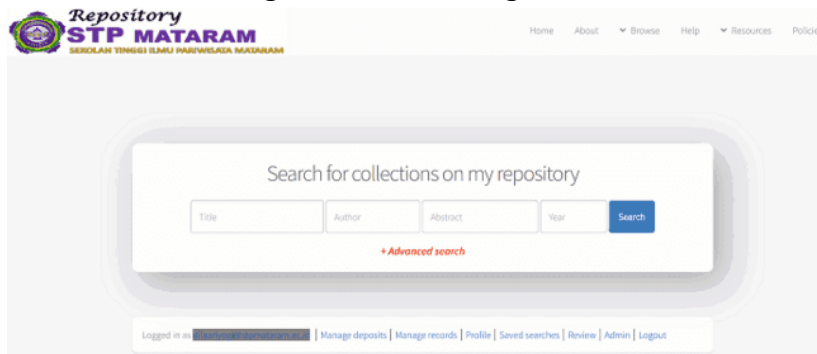


Figure 4. Main View of Library Repository Mataram Tourism College (STP)

The features in this system are very helpful for librarians in managing students' final assignments/thesis. The website address of the Mataram Tourism College (STP) library repository can be opened at the url <https://repositoy.stpmataram.ac.id> as shown in Figure 4.

2. Repository Search Column and Category Menu Display

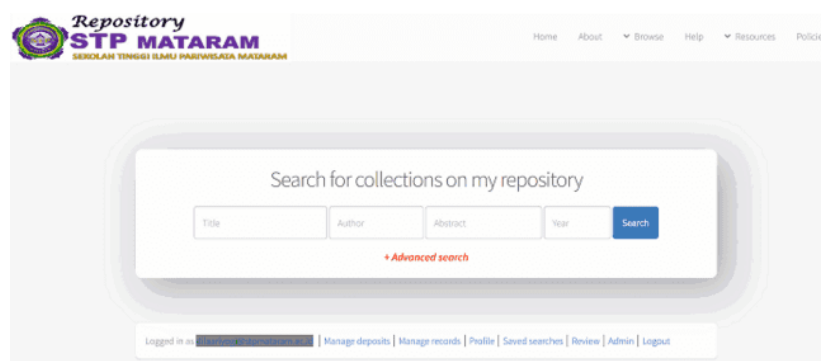


Figure 5. Repository Search Column and Category Menu Display

One of the advantages of the EPrints repository system is that it has a search engine facility (search box). Data collection carried out by the search engine is automatic and in real time based on relevant keywords between the data stored on the website and the search conducted by the user. This facility makes it easier for users to search for the information they need. Simply enter a few keywords, the system immediately provides information from the search results. Article searches can also be done through the search feature by category. Users do not need to write keywords in the search engine but users simply click on the menu provided in the repository either by year, subject, division, and author. Figure 5 shows the search results and search category menu.

CONCLUSION

From the results of this research analysis, it can be concluded that the implementation of Eprint began with an initiative from the Mataram Tourism College (STP) Library so that the Mataram Tourism College (STP) institutional repository would be included in the webometric ranking of university repositories and to increase the Mataram Tourism College (STP) webometric ranking from the aspect of university ranking. In implementing EPrints as repository software, there are several things that need to be prepared such as hardware, software and human resources (HR) that will operate the repository. The server computer and network used in managing the repository require large and smooth network bandwidth because the management of the repository with Eprints software is done online. The Mataram Tourism College (STP) institutional repository has 4 external entities that have their respective roles and are interconnected with each other, namely the administrator entity, the editor entity, the student user entity, and the user (public) entity. The features in this system are very helpful for librarians in managing student final assignments/thesis. The website address of the Mataram Tourism College (STP) library repository can be opened at the url <https://eprints.stpmataram.ac.id>

SUGGESTION

Based on the conclusions above, the suggestion that can be taken in this study is that it is necessary to make adjustments or adaptations to the methods used by each party in carrying out preservation activities. The development of more sophisticated information technology today can be utilized by institutions to carry out more optimal digital preservation. With the development of information technology, this can provide better and more precise digital preservation results.

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