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The Collaboration between Librarians and Faculties in Preserving and Publishing the Intellectual Heritages through the Institutional Repositories: a Case at Syarif Hidayatullah State Islamic University, Jakarta

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The Collaboration between Librarians and Faculties in Preserving and Publishing the Intellectual Heritages through the Institutional Repositories: a Case at Syarif Hidayatullah State Islamic University, Jakarta

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Abstract

This paper deals with the professional partnership between librarian and faculty members in preserving and publishing the intellectual heritages through the institutional repositories at Syarif Hidayatullah State Islamic University, Jakarta. As a new model or innovation of preservation and publishing, institutional repositories are regarded as the complex project. The collaboration among stakeholders, therefore, is required to the successful development of institutional repositories within the university. By using descriptive study, this paper explores the initiative program of the institutional repositories development and the roles of the librarian in bridging the self-submission by faculties. Based on the study, it was found that Syarif Hidayatullah State Islamic University has initiated the development of institutional repositories since 2010, and right now has become one of the biggest repositories among the Islamic universities in Indonesia. The proactive roles of the librarian as the repositories organizer and the willingness of librarians to collaborate with the faculties are the key factors of the successful development of the institutional repositories.

Keywords—Institutional Repositories; Intellectual Heritages; Scholarly Communication; DSpace; Professional Partnership; Syarif Hidayatullah Islamic University
I. INTRODUCTION

Institutional repository nowadays becomes a predominant model in open access. It is a part of the open access movement campaigns (Velterop, 2005). The institutional repositories are the system to preserve the intellectual output of students, faculty members and university’s scholars that are useful to support teaching, learning and research activities. According to Mandhirasalam & Srinivasaragavan, S. (2014) institutional repository is a set of services that a university offers to the members of its community for the management and dissemination of digital materials created by the institution and its community members. It is most essentially an organizational commitment to the stewardship of these digital materials, including long-term preservation where are appropriate, as well as organization and access or distribution. The institutional repositories, accordingly, is strategic of the today’s academic library service (Alvite and Barrionuevo, 2011).

As the system for managing scholarly resources, the institutional repositories is regarded as the way of disseminating research output of the university, and it can act of the new format of scholarly communication in the digital era (Lynch, 2003). Ware & Mabe (2009) stated that the institutional repositories in academic libraries is the favorable tools for scholarly publishing, and regarded as a new model or innovation of the scholarly communication. The intellectual outputs produced by the university members are stored and published through the repository system, and make it available online in the computer network. It addition, the establishment of institutional repositories becomes the solution to provide e-resources in the midst of expensive subscription. It can be an alternative to overcome the limitation of the library’s budget in providing the scholarly resources through the commercial online databases subscription (Young, 2009; Mossof, 2015). Through the institutional repositories, academic libraries can provide a wider access to online research resources by 7/24 services. The emergence of repositories, hence, enhance the services of academic libraries.

To respond to that issue, Syarif Hidayatullah State Islamic University has been developing the institutional repositories system since 2010. By using DSpace software, the number of intellectual output such as books, book chapters, research reports, teaching materials, theses for undergraduate and graduate students, dissertation, articles, patent, proceedings, manual, and inauguration speech, have been published in the university. Right now, more than 20,000 items of the scholarly works have been made available in the repositories system. People around the world can freely and easily access the resources through the repository portal.

However, although the repository initiatives have been introduced since the years ago, most of the university repository are less populated. As reported by Davis & Connolly (2007) most collections of the university repositories contain few items. The lack contents of the collection still remain the big problem of the institutional repositories development, including at Syarif Hidayatullah State Islamic University. Some studies such as by Abrizah (2009), Alemayehu (2010), Stanton & Liew (2011), Ogbomo & Muokebe (2015) identified that the awareness and the attitudes of university lecturers are the main factors contribute to the development of institutional repositories. Therefore, it is required to fully endorse the lecturers to continuously participate in the development of university repositories programs. In this case, it is argued that the professional partnership through the collaboration program between academic librarians and faculty members is the key success of the institutional repositories development projects in the university. The academic librarians can play their roles to collaborate with the faculties in the repositories development phases such as the content recruitment, the self-submission processes, and the publishing phase.

The paper is mainly to describe the initiative programs of institutional repositories development at Syarif Hidayatullah State Islamic University, Jakarta, and in particular to explore the academic librarians’ roles in preserving and publishing the scholarly works through the repositories.
II. METHODOLOGY OF THE STUDY

This study is conducted at Syarif Hidayatullah State Islamic University, Jakarta. The objective of the study is to explore the practices of the institutional repositories development and to identify the roles of librarians to succeed the implementation of the repositories projects. By using descriptive analysis, this study mainly provides information about the initiatives of institutional repositories development and the roles of the librarian in the repositories implementation processes. The data of study are collected from direct experiences in managing the repositories, from the studies of the literature and related documentations, and from the analysis of the repositories database.

III. THE FINDINGS AND DISCUSSIONS

1. The Initiative for the Development of Institutional Repositories in Indonesia

The issue on institutional repositories has been becoming popular since the last two decades. Basically, institutional repositories are the part of the development of the digital library. It is part of the digital library project to provide the digital repositories of the institution (Reese and Banerjee, 2008). According to Tiwary and Sahoo (2013), the digital libraries are being formed of scholarly works, archives of historical figures and events, corporate and governmental records, museum collection and religious collections.

In Indonesia, the issue of the institutional repositories has been becoming the mainstream of the digital library development in the last 1990s. According to Hasanah (2006), the Bandung’s Institute of Technology (or ITB = Institut Teknologi Bandung) through the Knowledge Management Research Group (KMRG) has introduced the system or software for the digital library management that was called Ganesha Digital Library (GDL). The system is designed mainly for managing the university outputs produced by its community members such as theses, articles of journals, research reports, and proceedings.

Meanwhile, the discussion on institutional repositories got a moment when the issue of being world class university come to the idea of the higher education institutions in the 2000s. Most of the universities in Indonesia are yearning for growing to be an excellent university and a part of the communities of the world class university. The institutional repositories, then, are believed to be one of the most important factors contributing to the achievement of that idea. Specifically, Farida (2013) stressed that the emergence of repositories in Indonesia was associated with the university ranking. According to her, the Webometric Ranking of Universities has encouraged the universities in the world to support the open access initiatives and to promote the global access of academic outputs resulted by the university members. The repository, accordingly, has been becoming a noteworthy foundation of the academic libraries to enhance the university performance. The institutional repositories are regarded to be beneficial to increase the visibility and credibility of the university as well as the organizational performances.

One of the universities that are turning out to be a world class university is Syarif Hidayatullah State Islamic University. Located in South of Jakarta, the university has the vision to be a leading university in Indonesia and South-East Asia. To achieve the idea, since 2010, the university has been developing the institutional repositories the vision. Through the repositories the university to preserve and disseminate the intellectual outputs.
2. The Current State of the Institutional Repositories of Syarif Hidayatullah State Islamic University, Jakarta

Syarif Hidayatullah State Islamic University, Jakarta, is one of the biggest Islamic universities in Indonesia. Established in 1957, the university has the vision to be a leading university towards the world class university (www.uinjkt.ac.id). To achieve that vision, it is necessary to endorse the university communities to be more productive in generating knowledge, and active in scholarly meetings at national and international levels. These will be useful for the university to get the citation impact that will elevate the university index and ranking. Institutional repositories are required to facilitate university lecturers in knowledge production by collecting, preserving, and disseminating the intellectual outputs so that the research outputs of the university are available online and visible within and outside of the institution (Doctor & Ramachandran, 2008). The institutional repositories, therefore, will increase the visibility of research outputs produced by the university. Since 2010, accordingly, Syarif Hidayatullah State Islamic University through the Library in cooperation with the University’s Quality Assurance Agency (LPM) and the Center for Information Technology, has been developing the institutional repositories. The DSpace software is used as the platform system to organize and manage the repositories to preserve and disseminate as well to provide an open access model of the university outputs. The interface language of the system is available in Indonesian, Arabic, and English.

Right now, the repository has been one of the 58 repositories indexed by OpenDoar (Directory of Open Access Repositories), of the 64 repositories listed by the Ranking Web Repositories, and of the 87 repositories released by the Registry of Open Access Repositories. The repository has been at the 13 of the 64 university repositories in Indonesia, and at the 608 of the university repositories in the world based on the Ranking Web Repositories (http://repositories.webometrics.info/) released by July 2016. According to the data released by the OpenDoar (http://opendoar.org/), until October 20, 2016, the collection of the repositories were 29,680 items. Unfortunately, based on the investigation through the repository website (http://repository.uinjkt.ac.id), it was found only 21,143 items recorded. The collection contained subjects Health and Medicine, Technology, Arts and Humanities, Philosophy and Religion, Business and Economics, Education, Law and Politics, and Psychology. The contents of the repositories can be accessed through the OAI-PMH with URL address: http://repository.uinjkt.ac.id/oai/. The short figure of the repositories is described as below.

Figure 1
Profile of the Repository on the OpenDoar Directory

3. The Repositories Contents as the Intellectual Heritages

The main indicator of the success of an institutional repository is on its contents. The collection of repositories, as stated by Doctor (2008), contain all types of intellectual outputs fabricated by universities members such as journal articles, papers, conference proceedings, books, book chapters, book reviews, cases prepared, patents, etc. The repositories contents are preserved for posterity. Moreover, the content or collection of the repositories depicts the productivity of lecturers of a university that leads to the high performance and visibility of the university. However, the intellectual outputs produced by the university members are the valuable resources. It represents the dynamic of academics ideas and innovation in the knowledge production. Therefore the results of academic outputs of the lecturers should be preserved for posterity. An institutional repository is created for the perpetual long-term preservation of intellectual heritages (Johnson, 2002). Using the advancement of technology, the institutional repositories preserve the materials in a digital format for a long-term preservation and a wider access purpose (Wheatley, 2004).

The study identified that the collection of the content of the repositories at Syarif Hidayatullah State Islamic University, Jakarta, until December 2016 are around 21,143 items. It consists of different types of the materials such as books, book chapters, articles, theses, and proceedings. The number of the repository’s collection based on the types of contents is described below.

### Table 1
Types of the Collection of the Repositories

<table>
<thead>
<tr>
<th>No.</th>
<th>Types</th>
<th>Total</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Books</td>
<td>21</td>
<td>0.1</td>
</tr>
<tr>
<td>2</td>
<td>Book Chapter</td>
<td>96</td>
<td>0.3</td>
</tr>
<tr>
<td>3</td>
<td>Research report</td>
<td>140</td>
<td>0.68</td>
</tr>
<tr>
<td>4</td>
<td>Teaching Materials</td>
<td>5</td>
<td>0.02</td>
</tr>
<tr>
<td>5</td>
<td>Undergrad. Theses</td>
<td>19820</td>
<td>90</td>
</tr>
<tr>
<td>6</td>
<td>Theses (S2/S3)</td>
<td>1343</td>
<td>6.4</td>
</tr>
<tr>
<td>7</td>
<td>Articles</td>
<td>425</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>Patent</td>
<td>6</td>
<td>0.03</td>
</tr>
<tr>
<td>9</td>
<td>Proceedings</td>
<td>87</td>
<td>0.4</td>
</tr>
<tr>
<td>10</td>
<td>Manual</td>
<td>3</td>
<td>0.02</td>
</tr>
<tr>
<td>11</td>
<td>Community Report</td>
<td>3</td>
<td>0.02</td>
</tr>
<tr>
<td>12</td>
<td>Inauguration speech</td>
<td>7</td>
<td>0.03</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>21143</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Table 1 indicates that most of the repositories collection are populated by academic theses, either undergraduate, graduate, or post-graduate theses. The total number of the theses materials are 96 %, and journal articles are only 2 %. The remain of 2 % resources is shared by other materials such as books, book chapters, articles, theses, and proceedings. Moreover, based on the subjects collected by the repositories, it was found that most of the repository contents were contained by subjects on educations. Detail of the subject content distribution of the repositories is depicted in the following table.

### Table 2
Subjects of the Collection of the Repositories

<table>
<thead>
<tr>
<th>Subjects</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 2 shows that subjects on education are the most populated resources in the repositories of 5,214 items. It is followed by subjects on laws (2,732 items), communications (2,363 items), economics & business (2,139 items), and humanities (2,056 items). Subjects on general Islamic studies are the smallest number of the repositories collection by 290 items.

4. The Procedures of Repositories Management

Actually, there are two phases of the repositories development in Syarif Hidayatullah State Islamic University, Jakarta. The first step is the initiative phase, and the second is the implementation phase.

At the first step of the repositories initiatives, there are two main programs, that are:

a. System Development

This first step is to prepare the platform for managing the repositories. There is much software of the repositories management such as E-Print, DSpace, Fedora Commons, and MyCore. DSpace, then, was used for managing the repositories because it was the open source system. According to Bankier & Gleason (2014), DSpace was one of the most software used for repositories management. It was open sources, Dublin’s Core metadata compliance, community support, and customizable design. Nazim and Mekherjee (2011) added that DSpace is widely used software package in Asian repositories. This was followed by E-prints, XooNTps, and HiTOS.

b. Data Migration

As the library has been collected the theses resources of undergraduate(S1), graduate (S2), and post graduate (S3), these resources, then, have promptly been migrated to the repository system as the initial contents. At the first time, there were 6,962 items that have been successfully transferred into the repository system. Actually, it is not simple to do the data migration. The library should verify the accuracy and the completeness of data. For example, the library should customize the metadata according to the repository system due to the different of the standard of metadata used by the previous library system. It was costly and time consumed.

The second phase of the repositories development is the implementation of the repositories for preserving and disseminating the scholarly works by the university members. This phase starts when the system has been developed, and ready to be utilized by users. Since the repositories system is designed for the lecturers and the users to archive their academic works as well as to make it available in the computer network, it is important to facilitate the lecturers the capabilities, skills and other requirements to do
self-submission. At this stage, the processes of the repositories submission and publishing are below.

a. Preparation
This is the pre-submission process. In this stage, the lecturers should have an account (username & password) to use the repository system. It is the key to access the system. Regarding with this issue, the center of IT is responsible for producing and determining the accounts of all faculties within the university. In addition, within this step, the lecturers prepare the materials that will be uploaded into the system. The lecturers collect their works and transform it into digital format (digitization). The digital material, then, is transformed into PDF format and added with the watermark identification. The watermark identification describes the ownership of material by the university logo. Then, the process is to protect the file to minimize the plagiarism or copy-paste by the end users. As the preparation processes are completed, then the user or faculties are ready for the submission the materials into the repositories system.

Figure 2
Example of a Document with Watermark Identification
b. Submission
Submission is the process of submitting the materials into the repositories system. It is performed by creating metadata and uploading or attaching the files. The files are the digitized materials that are ready to be published. The faculties are encouraged to do self-submission their works into the system.
In regard to this process, although the submission is basically a self-archiving model, some lecturers prefer to delegate their task to librarians. Due to the lack of skills of the submission practices or any other limitations, the faculties often ask the librarians to assist them in submitting their work into the system. They believe in the capability of librarians to perform their task.

c. Publishing
The next step of the institutional repositories program is to publish the contents so that can be retrieved by the end users. There are some requirements before publishing the repositories contents. In this stage, the librarians will verify the accuracy metadata, and validate the appropriateness of the content or files uploaded by faculties. When the metadata is correct, and the files uploaded are appropriated, then the librarians will approve for the publishing process. In this case, the academic librarians play their roles as the publisher of repositories.

5. The Professional Partnership in the Development of Institutional Repositories

According to Cambhell-Meier (2008), the development of institutional repositories is the complex project that requires the contribution from stakeholders such as librarians, lecturers, technical service, public service, and administration. The collaboration between stakeholders within the university will ensure the successful implementation of the institutional repositories. In addition, since the repository system is provided to facilitate the lecturers, it is necessary to prepare them the capability in using that system. Academic libraries through librarians should cooperate and collaborate with faculties in the implementation processes of institutional repositories.
Based on the study, the kinds of collaboration in the implementation processes development of institutional repositories are identified as below.

<table>
<thead>
<tr>
<th>No</th>
<th>Activities</th>
<th>Executors</th>
<th>The Roles</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>Pre-Implementation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Knowledge production</td>
<td>● Lectures &amp; Other</td>
<td>The authors who are conducting academic program to produce ideas, innovation,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>universities communities</td>
<td>and scholarly works</td>
</tr>
<tr>
<td></td>
<td>2. System Development</td>
<td>● IT Division</td>
<td>The Program developers who are designing and developing the system for managing the repositories</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Librarians</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Infrastructures Preparation &amp;</td>
<td>● Administration</td>
<td>The facilitators who are facilitating the development of repositories such as server</td>
</tr>
<tr>
<td></td>
<td>Installation</td>
<td>● IT Division</td>
<td></td>
</tr>
</tbody>
</table>
Table 3 provides the explanation about the involvement of librarians in the development of institutional repositories. The librarians as seen in the table have actively contributed for the every phase of the implementation of repositories programs since the pre until the post program implementations. At the pre-implementation, librarians collaborate with IT division staffs to design and develop the repository system. Librarians identify the user’s needs to the system and analyze the need for metadata standard and specific required fields such as fields for the embargo materials and for the license. In addition, in the content recruitment and preparation, faculties and librarians work together to collect and deposit their materials. Librarians also voluntarily look the old materials for the repository's collection. Moreover, librarians are responsible for making sure that all materials submitted should be identified by watermarks.

In the implementation processes, faculties and librarians cooperate in submission processes. Although it is basically self-archiving method, many lecturers tend to delegate this submission
to librarians. To ensure the accuracy and validity of data, librarians verify the metadata created by lecturers, and the files attached. While data and files are appropriated, and all field of the system have already been examined, librarians then will publish these materials so that can be available online and can be accessed through the internet connection. Before giving an approval to all data and files for publishing, it is a necessity for librarians to facilitate the Common Creative (CC) License for the free distribution.

However, the success of institutional repositories development depends on the continuance use by lecturers for their academic purposes. As the library is regarded to have a responsibility towards the repository, it is needed for librarians to proactively promote the importance of repository among university members. Besides providing services pertaining with repositories, librarians continuously advocate lecturers in using repositories for academic purposes. Training on information technology (IT) skills and workshops are regularly conducted to upgrade the technical capability among lecturers to use the repository system and to escalate the awareness and attitudes of faculties towards the repositories.

The description above shows that the librarians play strategic roles in the development of institutional repositories. This is relevant to the studies conducted by Dhanakar et.al (2008) and Kamraninia & Abrizah (2010). While Dhanaker et.al. (2008) stressed the importance of librarian to take their roles in the development of a repository, Kamraninia & Abrizah (2010) stated that academic librarians are the agent of change for institutional repositories. In this case, reference librarians are the more responsible to proactively participate and cooperate with other stakeholders, specifically with the lecturers in the university (Bayle, 2005; Phillip, Carr, & Teal, 2005).

IV. CONCLUSIONS

As a complex project, the development of repositories requires to the participation and contribution of stakeholders. The cooperation among stakeholders is necessary to guarantee the effective implementation of the repository development program. Academic librarians should be encouraged to collaboratively work with the university lecturers in every stage of the institutional repository development processes. Academic librarians are the enabler and agent of change of the institutional repositories. The professional partnership between librarian and faculties is the foundation of the successful development of institutional repositories in the university.

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