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## Promotion of Usability through Institutional Repository of SEUSL

### Library

S. L. Mohammed Sajeer

Assistant Librarian

South Eastern University of Sri Lanka

[sajeer.slm@seu.ac.lk](mailto:sajeer.slm@seu.ac.lk), [sajeer241@gmail.com](mailto:sajeer241@gmail.com)

### Abstract

Institutional Repositories (IR) provide facilities to the faculty, researchers and administrators who need to archive and share their research articles and historical and creative materials. Access to information through electronic media is required by libraries and user communities and therefore, almost all the libraries in universities have developed IRs as a strategy of IT application in library services. Archival Collection service is important to any academic library. The aim of this study is to identify how electronic information resources are developed by academic library users and press trends that can be seen among faculties and students. The study also examines the use pattern, acceptance, perceived importance and satisfaction on electronic resources over print resources. Open source software “Dspace” was used to create an Institutional Repository and the tools such as JDK7.3; Apache Maven 3.1.1; Tomcat 8.0.3; Apache Ant 1.9.3; Postgres SQL 9.3; Dspace 5.4 and HP scanner were used with the Dspace Software. Past Question Papers, SEUSL scholarly publications, speeches, newspaper clippings, audio materials, SEUSL newsletter/information bulletin, CD and DVD collection, conference publications, e-books, electronic theses and dissertations, journal Article, Lecture presentation, news clippings, photos, project reports question bank and syllabus and other electronic resources were uploaded into IR. The digital builder has facilitated the user to click the question Bank for uploading more question papers and Archive Collection.

Users were educated how to search, upload and download resources from IR. The study found that users were interested to use the IR by searching uploading and downloading.

**Key words:** *digital Library, Open Source software, Dspace, Institutional Repository, digital collection*

## 1.1 Introduction

Electronic resources are one of the evolving situation in libraries & information communicated in the modest service. E-Resources usually consist of e-books, E-journal, article, newspaper, thesis, database and CD-Roms, which are likely to be the alternative to the print media. Emerald, EBSCO, Scopus are some of the examples of online databases. The aim of this study is to identify how electronic information resources are developed by by academic library users and press trends that can be seen among faculties and students. further the study also examines the use pattern, acceptance, perceived importance and satisfaction on electronic resources over print resources.

### Why institutional Repositories?

Repositories provide service to faculty, researchers and administrators who want to archive research, historic and creative materials. The open access and open archives movement, the need for changes in scholarly communication to remove barriers to access and the increasing awareness that universities and research institutions are losing valuable digital and print materials have driven the establishment of institutional repositories. Using open archive models, established metadata Standards and digital rights management. New and important information source are seeing the light of day and seeing the light of day and becoming more generally available.

## 1.2 Online Services: Access to E-Question Papers and Archive Collection

The present technological scenario, many familiar websites is hosted on their website in collecting previous question papers for the user community. For example; the <http://192.248.66.12/pqp/?jsessionid=B734ED20C7EFD59F3AE4E5C36AB5E709> we maintain two URL from the SEUSL-NET one is exam's collections and other one is Archive Collection of general first paper and specific disciplines. <http://digital.lib.ou.ac.lk/pqp/handle/123456789/8> previous year competitive questions.html this web page has shown in the various competitive exam previous question related faculty wise. Archive Collection are <http://ir.lib.seu.ac.lk/> Folklore Collection [17], Islamic Heritage Collection [18], Rare Materials [1], Research Publications [1039], Thesis & Dissertation [195], University Archives [53]. The showed web pages and other web sites are made IR for their collection to upload the OSS. Some web site organizers were maintained the previous collections are in their SEUSL feedback. Here the researcher has decided to demonstrate how to create an IR for digital libraries.

## 1.3 Statement of the Problem

Information access through electronic media has had a lot of impact on the Libraries and the user community. Almost all the librarians have been facilitated to develop new strategy for managing the IT facilities. Online Question Paper and Archive Collection service is the most important to any academic library. Based on these thrusts the South Eastern University of Sri Lanka Library is providing this service to the user community by the traditional way. The researcher observed the entire process and planned to implement the new technology to bring a solution to this service. Hence the researcher has selected the problems as creating Institutional Repository.

## 1.4 Objectives

- To identify the Disciplines of various departments conducting from SEUSL
- To save the shelf Dspace and Preserve Digital Intellectual Content for Present and future use and avoid damage.
- To protect their physical formats and indicated to digital preservation.
- To scan and convert the entire printed Question Papers and Archive Collection into the digital format Using Digital HP Scanner.
- To provide a better archive of Question Papers and Archive Collection for perpetual access to end users.
- To create awareness among the Library Professionals about Online Question Papers and Archive Collection in SEUSL Library

## 1.5 Methodology

### 1.5.1 Digital Repository Software

A Dspace Digital Repository is a suite of software for building and distributing digital library collections. It provides a new way of organizing information and publishing the digital content. Some of the prominent open source software packages for digital library institutional repositories are D-Space, Greentone and etc.

### 1.5.2. Dspace

DSpace (<http://www.dspace.org>) was developed jointly by the MIT library and Hewl Packard (HP) Labs. DSpace modestly describes itself as a groundbreaking digital repository system. It captures, stores, indexes, preserves and distributes an organization's research material format. DSpace is being popularly used worldwide to meet many digital archive needs. Based on the needs and services of the repository, institutions will then want to assess the available software platforms. The software is free to download, but usually requires some level of expertise to implement and maintain. A central governing body manages the source code, but it is open for changes and enhancements from the development community (for Example CDSware,DSpace, Eprint,Fedora,Greenstone)

### 1.5.3 Requirements for Dspace

The researchers have taken the open source software of Dspace for institutional repository the following tools are used in our study. Such that JDK7.3; Apache Maven 3.1.1; Tomcat 8.0.3;Apache Ant 1.9.3; Postgres SQL 9.3; Dspace 5.4 and HP scanner that questions converted into digital format with the help of a scanner.Moreover Building collection used Dspace Software.

## 1.6 Plan of the work

Based on the importance of the question Bank service in SEUSL Library the researcher has planned and extended the following steps to complete the online question Bank Service by Dspace institutional Repository.

- Researchers have completely scanned the previous and current years question papers which is not available in e-paper format and collected the question papers
- Create metadata and organized the collected question papers under the major headings.
- Selected the suitable institutional repository as Dspace and installed live CD in Debian Platform
- To capture tacit knowledge and converting to explicit knowledge.

## 1.7 Methods of uploading on Question preparing SEUSL library IR

### 1.7.1 Step A : Accessing the university and Library URL

Digital library creator must be build the digital repository for available resources and used collecting resource through interpersonal collections with univesitis.Initially the Creator should the South Eastern University website (<http://www.seu.ac.lk/>) and then click the Library sub heading in that web page or in next ways it's possible to go strait Library website to <http://www.seu.ac.lk/library/> .Before uploading the question papers, we have to convert the hard copy to soft copy using a scanner.

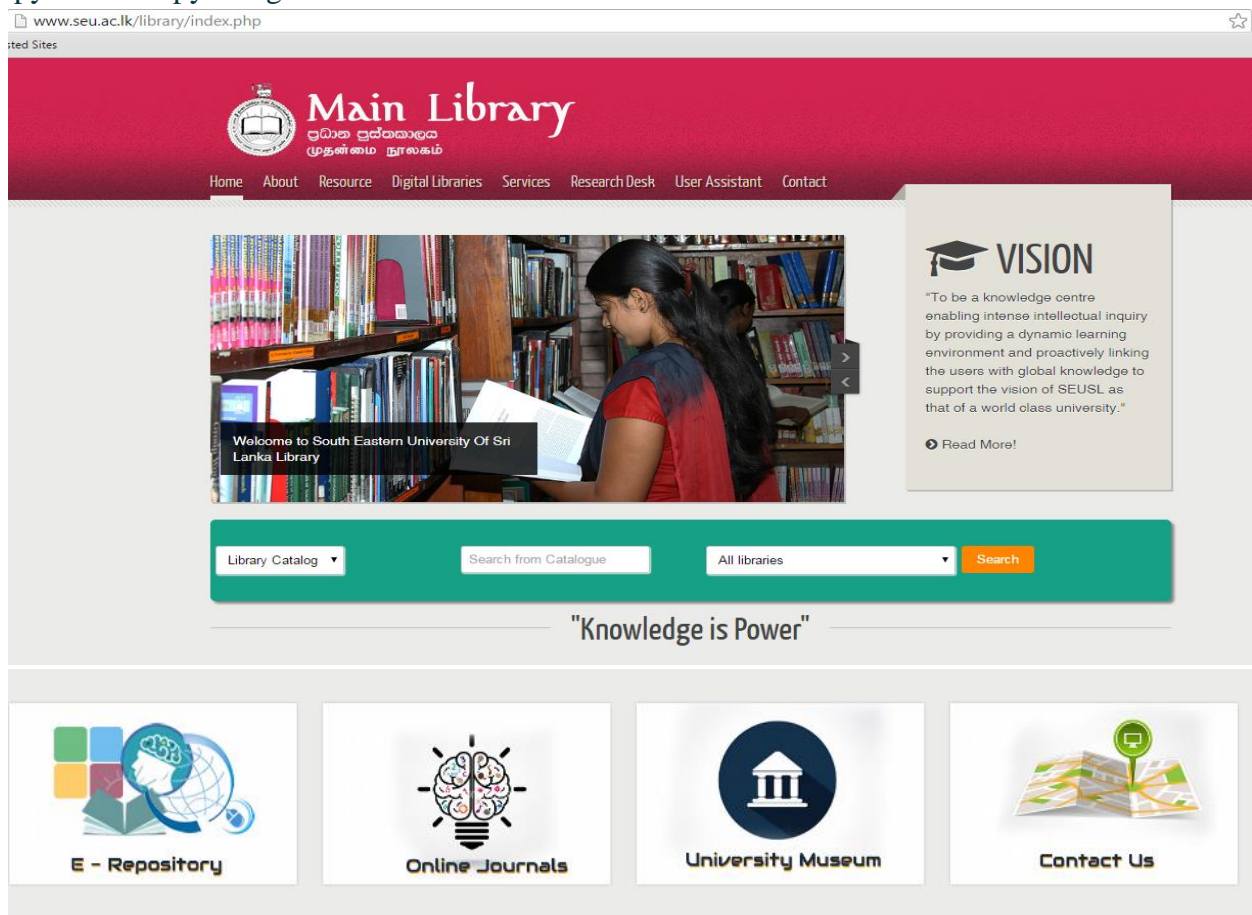


Figure 1: uploading methods step A

## 1.7.2 Step B: institutional Repository

Find and click the institutional repository on that SEUSL university library page, we can get some more information are there what the library collection are available. SEUSL IR (categories of question bank and Archive Collection) provides the access to the SEUSL scholarly publications, speeches, newspaper clippings, question papers and other electronic resources. Such that, Audio collection SEUSL newsletter/information Bulletin, CD and DVD collection Conference publications E-books, Electronic Theses and Dissertations, Journal Article/scholarly publication, Lecture presentation, News clippings, photos, project reports question bank and syllabus the digital builder has to click the question Bank for uploading more question papers and Archive Collection .

The screenshot shows the SEUIR website interface. At the top, there is a search bar labeled 'Search SEUIR' with a 'Go' button. Below the search bar, there are sections for 'Communities in SEUIR' and 'Recently Added'. The 'Communities in SEUIR' section lists several collections with their respective counts: Folklore Collection [17], Islamic Heritage Collection [18], Rare Materials [1], Research Publications [1039], Thesis & Dissertation [195], and University Archives [53]. The 'Recently Added' section displays a recent entry: 'The problem of stateless Indian citizen in Ceylon: historical origins' by Anuzsiya, S (MJP publishers, 2015).

Figure 2: uploading methods step B

The screenshot shows the PQP - Archive website. The main heading is 'Past Examination Papers, South Eastern University of Sri Lanka'. Below this, there is a 'Library Home' sidebar with links to OPAC, I-Repository, and SEU-Archive. The main content area is titled 'Past Examination Papers Collection' and includes a description: 'This is included past examination papers in faculty of Arts and Culture, Management and Commerce, Applied Sciences, Islamic Studies & Arabic Language and Engineering'. A note states: 'All past examination papers can be access within the University premises.' Below the description, there are three filter sections: 'Communities in PQP-SEU', 'Discover', and 'Year'. The 'Communities in PQP-SEU' section lists various faculties with their respective counts: Faculty of Applied Sciences (6), Faculty of Arts and Culture (0), Faculty of Engineering (0), and Faculty of Islamic Studies & Arabic (1). The 'Discover' section lists departments with their counts: Biological Science (4), Accountancy & Finance (2), MANAGEMENT (1), Mathematical Sciences (1), and Physical Sciences (1). The 'Year' section lists years with their counts: 2010 - 2013 (6), 2000 - 2009 (2), and 1997 - 1999 (1).

### **Figure 3: uploading methods step C**

#### **1.7.3 Step C: Uploading Question papers and Archive Collection updates**

After clicking the question papers and Archive Collection we can get the web page like figure 2 & 3, then the researcher has a click to my DSpace or any other option. The access, delivery and retrieval of a question bank in the traditional manual manner is a time-consuming job, especially in a large organization such as ours where library user is posted all over the country. The collection question paper has been accumulated through downloading from digitized document and scanned hard copy of the question paper in print form related to all subjects. After clicking the my Dspace, we can get some subdivisions under the category of question banks and asking the user name and password for uploading papers. Under this domain of subject name.

#### **1.7.4 Step D :Submit new collection**

After entering the username and password, we can get the title of Myspace: Dspace South Eastern university in Sri Lanka. Under this title we can send one message like start a new submission inside a box. Clicking that box, we could give the collection named, i.e., under the category of question papers. Next to that we get the submit: describe the item message. One that describing items, there is must enter more details of the new submit collection of question papers and Archive collection after describing the item details, we can create a submit file from any folder for uploading

#### **1.7.5 Stages of submission of new collection (question papers and Archive collection)**

The bellows figures are depicted that the step by step uploading in IR for digital access of a new collection on question Bank and Archive Collection. SEUSL IR provides the access to the question papers and Archive Collection an institutional E-repository is online locus for collecting, preserving and disseminating in digital form question papers and intellectual output of SEUSL Library.

### **1.8 Accessing facilities in SEUSL IR for question papers and Archive Collection**

The User can conduct searches in a Dspace repository in two ways. One, users can search through all the communities and collection of the repository; they can restrict your search to a specific community or collection. To search in all the communities and collection of the repository, use the yellow search in all the communities and collections of the repository, use the yellow search box at the top the navigation bar on the left. The words you enter in the search box will be searched against the title, author, subject abstract, series and sponsor and identifier fields of each item's record. Assessing digital collection from SEUSL library, IR question papers and Archive Collection metadata, there are two ways; such that: 1 access through community & collection 2 Browsing in Dspace .

### **1.8.1 Browse by Community/collection**

This option takes the user through the communities in alphabetical order and allows the users to see the collection within each community. Browse allows the user to go through a list of items in some specified order DSpace allows the user to browse through; subject /collection, by title, By Author and By Date.

The Figure 2 &3 is shown that the steps for accessing newspaper clippings from SEUSL IR and very easy to access at the end user getting knowledge. The web –based question paper systems have various advantages over traditional question bank and Archive Collection service and a few have been listed below;

- Instant access of question papers after the web through a common user interface;
- Global access of question papers and Archive Collection in real time by remote users.
- Guest access to full-text question papers and Archive Collection.
- Dynamic updating of the back-end database from many locations.
- Provision of a high level of search options for question papers archive retrieval.
- Instant feedback from users.
- Unlimited downloading and printing.
- Environmentally and user friendly.

### **1.9 Conclusion**

Keeping the view the above objectives SEUSL library has implemented the web based, full text question papers and Archive Collection create a metadata for our precious user of student scholars, faculty and other user over its intranet. The repository is running well, being appreciated and used extensively by library patrons of SEUSL. Question Bank helps in providing the latest syllabus and old syllabus information and it helps the student community for getting ready for their exams. This IR have been to have used the user community users making them feel connected to the rest of the university by reading the question papers related their subject and researchers depend on Archive Collection.

At the Dspace and other allied software's are available through open source and free of cost if you have the or acquire some knowledge from anybody regarding installation of this software and uploading of data then it can help you to work with digitization. For this purpose, scanner, digital camera, internet connection some dedicated, skilled manpower, etc. will help us to carry on the IR as well as to help the internal and external users enormously. The researcher hopes that this service will be a role model and useful in the design and implementation of web based question Bank and Archive Collection service in other university Libraries.

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