



Usage and Implementation of D Space Institutional Repository at Malini Kishor Sanghvi College of Commerce & Economics, Mumbai: A Case Study

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Abstract

A college library has many useful documents apart from books and journals. Every year most or the libraries create resource materials such as Question papers, syllabi, college souvenirs, student and faculty contributions, research papers, reports and other academic materials. If these materials are kept only in physical form, they may be difficult to maintain physical space, to find out and use when required. An Institutional Repository (IR) provides a way to collect, organise, preserve and provide access to such materials in digital form. During the COVID-19 pandemic lockdown period, students and teachers could not visit the college library regularly. At that time, access to these digital learning materials and other academic information became very important. With the help of digital repository users can access the resource material even when they are away from the library.

Malini Kishor Sanghvi College of Commerce & Economics, Mumbai, has developed a DSpace-based Institutional Repository to provide access to selected academic and institutional resources. This institutional repository contains selective collections such as question papers, syllabus of various courses, souvenir, Aakaar, open access resources and college journal 'the International Journal for Interdisciplinary Knowledge' (IJFIK). This paper discusses the practical aspects of planning and implementing DSpace in respect to a college library, selection of materials, organisation of collections, metadata, user-friendly design, challenges and the role of the librarian. The paper also enlightens how the experience of the COVID-19 pandemic supported the necessity for digital access to library resources.

Keywords: *Institutional Repository, DSpace, College Library, Digital Library, COVID-19, Open Access, Question Papers, Digital Preservation*

Introduction

Traditionally in a college library, useful information is created and collected every year. These materials are kept in files, cupboards or registers but finding an old document can take time. Students prepare assignments and projects, teachers prepare study materials, departments produce reports, the college publishes souvenirs and magazines, and examination question papers are generated every semester. Syllabi and other academic documents also need to be preserved for future reference.

Digital technology basically an Institutional Repository provides a practical solution to this problem. It can bring selected institutional documents together in one digital platform. DSpace is one of the commonly used open-source software platforms for creating such repositories.

The need for digital access became particularly clear during the COVID-19 pandemic. During the lockdown, colleges and libraries were closed for physical access for long periods and library collection was physically available, users could not always come to the library.



Students were studying from home and teachers were conducting classes online. This situation showed that a library should not depend only on physical access. During this period, digital resources became an important support for teaching and learning and selected library and institutional resources make available online at any time.

The experience also changed the way users looked at library services. Students became more comfortable with accessing information through computers and mobile phones. Therefore, providing a simple digital platform became an important part of modern library service. At Malini Kishor Sanghvi College of Commerce & Economics, Mumbai, DSpace has been used to organise and provide access to selected institutional and academic resources that includes collections such as Aakaar, Important Open Access Resources List, International Journal for Interdisciplinary Knowledge (IJFIK), Question Papers, Souvenir and Syllabus.

The repository can therefore be viewed not simply as a software installation, but as a library service developed to make selected institutional information easier to preserve and access.

1 Why an Institutional Repository Became Necessary During COVID-19

During lockdown, this normal traditional process was interrupted.

Several practical problems were faced:

- Students could not visit the college library physically.
- Students needed previous examination papers for online learning and examination preparation and Printed question papers were not easily accessible
- Library services had to continue with minimum physical contact.
- Academic activities increasingly depended on digital resources.

The COVID-19 pandemic gave libraries a practical lesson that information should be available even when the library is not accessible. Through the support of a repository users could access documents through the internet without visiting the library. However, the pandemic showed that digital access is an essential additional service.

2. Objectives of the Study

The main objectives of developing and using the DSpace Institutional Repository at MKS College are:

- a) To preserve selected academic and institutional documents in digital form.
- b) To provide easy online access to important college resources.
- c) To make previous question papers easily available to students.
- d) To preserve and to organise documents and to provide access to resources when users cannot visit the physical library.
- e) To support teaching, learning and academic activities.
- f) To increase the visibility and usefulness of the college's intellectual and academic output.

3. Methodology

This paper is based on a practical case-study approach. The implementation and use of the DSpace Institutional Repository at MKS College were examined from the point of view of a college library. The discussion focuses mainly on practical issues face while planning and maintaining an Institutional Repository rather than on technical programming details.



4. Planning Before Implementation

Installing DSpace is only one part of creating an Institutional Repository. Before implementation, the library needs to decide what it wants to preserve and why. When our Why is clear we will find the exact pathway.

The things focus on:

- 4.1 Purpose of Digitisation** - For a college library should first identify its actual requirements to identified selective resources to be digitized
- 4.2 Understand the Users** - the repository should be designed from the user's point of view.
- 4.3 Select Materials Carefully**- There is no need to upload everything at once. The library can start with materials that are frequently required or have long-term value. For example:

- Previous question papers
- Current and old syllabus
- College souvenirs
- Research papers
- Institutional reports
- College magazines with the achievements and contributions of students and faculty members
- Important open access resources

At MKS College, the repository includes different types of materials. This makes it more useful for the day-to-day academic needs of a college.

- 4.4 Digitisation Quality** - Before uploading, documents should be checked for:
 - Clear scanning
 - Complete Readable text
 - Correct file naming

It can make scanned documents easier to search.

- 4.5 Backup and Preservation** - Uploading a document to DSpace does not mean that preservation is automatically complete. Backup arrangements are necessary.

The library should maintain:

- Regular server backup
- Proper file naming
- Metadata records
- Access control

Digital preservation is an ongoing activity.

- 4.6 Responsibility of Library Staff** - Library Staff should be given clear responsibility for the repository.

The work may include:

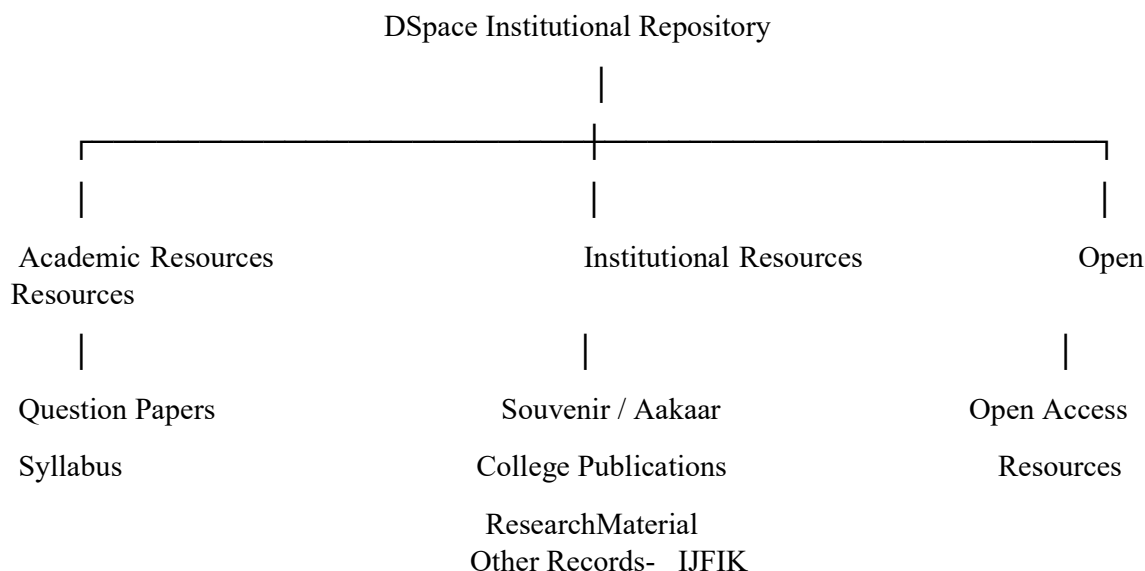


- a) Collecting documents
- b) Scanning or converting documents
- c) Preparing metadata
- d) Uploading files
- e) Checking uploaded records
- f) Correcting errors
- g) Taking backups
- h) Helping users
- i) Reviewing the repository regularly

Without regular responsibility, a repository may become inactive after the initial implementation.

4.7 Designing the Repository- The repository should have a simple structure that users can understand. The important point is that the organisation should follow the way users normally search for information.

A basic structure can be represented as:



For example, question papers can be arranged by programme and then by year or examination and also allow users to search by title, author, subject and date. Thus this is more useful to students than keeping all question papers in one large collection.

5 Materials and Collections at MKS College

The MKS College DSpace repository contains different collections representing both academic and institutional information.



Collection	Main Content	Use
Question Papers	Previous examination papers	Examination preparation and reference
Syllabus	Programme and course syllabus	Academic reference
Souvenir	College publications	Institutional Memento
Aakaar	Student, faculty and staff contributions	Preservation & maintains of creative and institutional material
Open Access Resources	Links of various e-resources	Access to academic online information
IJFIK	International Journal for Interdisciplinary Knowledge	Access to journal content

5.1 Question Papers - Question papers are one of the most useful resources for undergraduate students. Students regularly need previous papers to understand examination patterns and important topics. The MKS repository now organises question papers according to programmes including B.Sc. IT, BFM, BIM, BMM/BAMMC, BMS, M.Com., B.Com., BAF, BBI and Junior. The collection currently shows more than 5,000 records. Presently students can access previous years question papers without searching through physical files.

For example: Programme → Subject → Examination → Year → Question Paper

This is a simple structure that a student can understand easily.

5.2 Syllabus – Syllabus documents are useful for students, teachers and library staff. They help users understand the subjects and course structure applicable to a particular programme. Old syllabus documents are value because curriculum patterns change over time.

5.3 Souvenir- College souvenirs are valuable institutional records. They may contain photographs, messages, articles, event reports and information as well as institutional memory about college activities.

5.4 Aakaar- Aakaar provides a place for contributions from students, faculty and administrative staff, including write-ups, poems, photographs/images and records of college events and celebrations.

5.5 Open Access Resources- The Open Access Resources collection provides information during periods when students were studying remotely and it's about e-journals, e-books, electronic theses and Open Educational Resources and other useful online resources.

5.6 IJFIK- The repository also includes the International Journal for Interdisciplinary Knowledge (IJFIK), providing access to journal-related academic content through the institutional platform.

6. Metadata and Organisation- Uploading a PDF is not just enough its required exact or proper title and other details entries otherwise finding the document later becomes difficult.

Basic metadata may include:

- Title



- Author
- Date
- Subject
- Programme
- Department
- Description
- Keywords
- Type of document

For a question paper, useful metadata could be:

Title: Business Economics – Semester II Question Paper

Programme: B.Com.

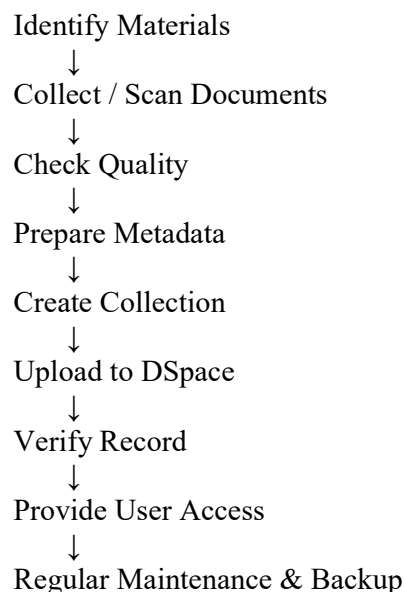
Year: 2019

Subject: Business Economics

Document Type: Question Paper

This metadata saves time for both users and library staff. It is also important to use consistent vocabulary. For example, the same programme should not be entered in several different forms unless there is a clear reason.

7. Implementation Process - A practical implementation process can be followed step by step:



This implementation process should be slow. It is better to start with one useful collection; complete it properly and then move to another. Trying to digitise the entire collection at once can create unnecessary pressure on library staff. For a college library, initially question



papers are often a good starting point because they are regularly used by students and are relatively easy to organise.

8. Making the Repository User-Friendly- take precaution while uploaded the documents that the success of a repository depends not only on the number of documents uploaded but also on whether users can find what they need.

A user-friendly repository should have:

- Simple collection names
- Clear programme-wise organisation
- Search facility
- Browse by subject
- Browse by date
- Meaningful titles
- Readable PDF files
- Mobile-friendly access where possible
- Minimum unnecessary technical terminology

For example, a student searching for a BAF question paper should be able to reach it in a few simple steps rather than moving through many unrelated pages.

Library staff should also observe how students use the repository and identify common difficulties. If users repeatedly ask where a particular document is located, the organisation or metadata may need improvement.

9. Role of the Librarian - The librarian has an important role in the success of an Institutional Repository. The librarian understands both the information requirements of users and the organisation of library resources. Therefore, the librarian can help decide what should be collected, how it should be organised and what information should be entered in the metadata.

The librarian also has to coordinate with technical staff when server, software or networking problems occur. Most importantly, repository work should not stop after the initial uploading. New question papers, syllabus changes, college publications and other useful documents need to be added regularly. The librarian also needs to check whether old links work, whether documents open correctly and whether the repository remains easy to use.

10. Challenges and Practical Solutions

Challenge	Practical Solution
Large number of documents	Work collection by collection
Poor-quality scans	Check documents before uploading



Incorrect metadata	Prepare simple metadata guidelines
Lack of technical knowledge	Provide basic training to library staff
Server or network problems	Maintain technical support and backup
Repository becomes outdated	Fix responsibility for regular updating
Users are unaware of the repository	Promote it through library orientation and college communication

Research on Indian institutional repositories has also pointed out issues such as limited content growth, weak policies and insufficient usage statistics. This suggests that planning for maintenance and evaluation is as important as the initial development of the repository.

In the particular case of MKS College shows that a college Institutional Repository can be useful even when its collection is not limited to research publications.

The following observations can be made:

- a) The COVID-19 pandemic clearly demonstrated the need for remote digital access became much more important when physical library services were restricted
- b) for examination preparation without depending on physical copies students can use Question papers are highly practical repository content.
- c) Souvenirs, magazines, photographs and event record such documents the history of the college have a long-term value.
- d) Different types of users need different materials. Students primarily use question papers and syllabus, while teachers and researchers may require other institutional and academic resources.
- e) Good organisation of documents is important in traditional as well as digitisation process. A large number of documents is not useful if users cannot find them easily.
- f) Incorrect or incomplete metadata can make useful documents difficult to discover.
- g) New materials, technical maintenance, backups and quality checking are necessary for the repository to remain useful and it's a continuous process.
- h) A repository supports the physical library rather than replacing it.

➤ **Conclusion – :**

The COVID-19 pandemic changed the way libraries and users looked at access to information. When students could not enter the library physically, the importance of digital resources became clear. A college library therefore needs to think beyond its physical shelves and provide selected resources through digital platforms. The DSpace Institutional Repository at Malini Kishor Sanghvi College of Commerce & Economics is



an example of how a college library can preserve and provide access to academic and institutional material in digital form. Collections such as question papers, syllabus, souvenirs, Aakaar, open access resources and IJFIK serve different information needs. Users' and libraries' perspectives on information access were changed by the COVID-19 pandemic. When students were unable to physically access the library, the value of digital resources became clear. As a result, in addition to its physical shelves, a college library must provide some resources through digital platforms. DSpace can help a college library provide this continuity. With regular updating, proper metadata, backup, and user-oriented organisation, an Institutional Repository can become a useful extension of the college library and an important part of its digital services.

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