



Institutional Repository for Milligan College

Introduction

Objective

"The Milligan College Archivist in consultation with the Director of Library Services will explore the feasibility and options for establishing an *institutional repository* (IR) for Milligan College."

2012-13 Library IEP

Definition

An *institutional repository* (IR) is a centralized networked digital platform for uploading, organizing, preserving, and accessing electronically scanned (print to digital), converted (analog to digital), and born digital products and assets. An IR is an archive for the digital age, which can enhance the visibility of an educational institution by showcasing student and faculty work, the history of the institution, and the richness of the college experience.

Mission

"*MCStor* serves as Milligan College's digital repository intended to capture, distribute, and preserve scholarly work created by faculty, staff, and students at Milligan College, as well as materials of historical value to the College. *MCStor* provides access to digitized materials of the Milligan College Archives and Special Collections. By offering a central location for depositing these materials, *MCStor* makes them available to a wider audience and helps assure long-term preservation."

2014-15 Library IEP

What can go in the repository?

- Student research papers, portfolios, theses
- Faculty publications
- Datasets
- Photos
- Digital/digitized art galleries
- Speaker and performance audio & video recordings, transcripts
- Promotional and marketing materials
- College newspapers and yearbooks

What can go in the repository?

- Alumni newsletters and magazines
- Scanned and digitized historical documents
- Special collections exhibits
- Catalogs and other academic policy documents
- Committee minutes
- Accreditation documentation
- Controlled access business records
- Etc.

Process (it takes some time)

- **2012-13 – Exploration:** review literature and webinars; query experience of other institutions; explore hardware, software, and staffing requirements; identify and engage Milligan College stakeholders. *DSpace selected for IR platform.*
- **2013-14 – Best Practices & Support:** IT to host DSpace on campus servers; adapt Kalamazoo College's Digital Archive Policies; tentative name *MCStor*. *Archivist (Lindsay) and Web Development Specialist (David) will staff MCStor.*

Process (it takes some time)

- **2014-15 – Implementation:** Install DSpace with initial 250GB storage; David to handle configuration and troubleshooting; Lindsay to handle policies, metadata, content submission, organization and access, copyright and licensing. *Repository named MCStor with permanent web address; developed Mission Statement; loaded initial community/collection.*
- **2015-16 – Promotion and Growth:** *Formally launched MCStor August 2015; workshops presented during Open Access Week.* New collections created and content uploaded—ongoing.

Technical Overview

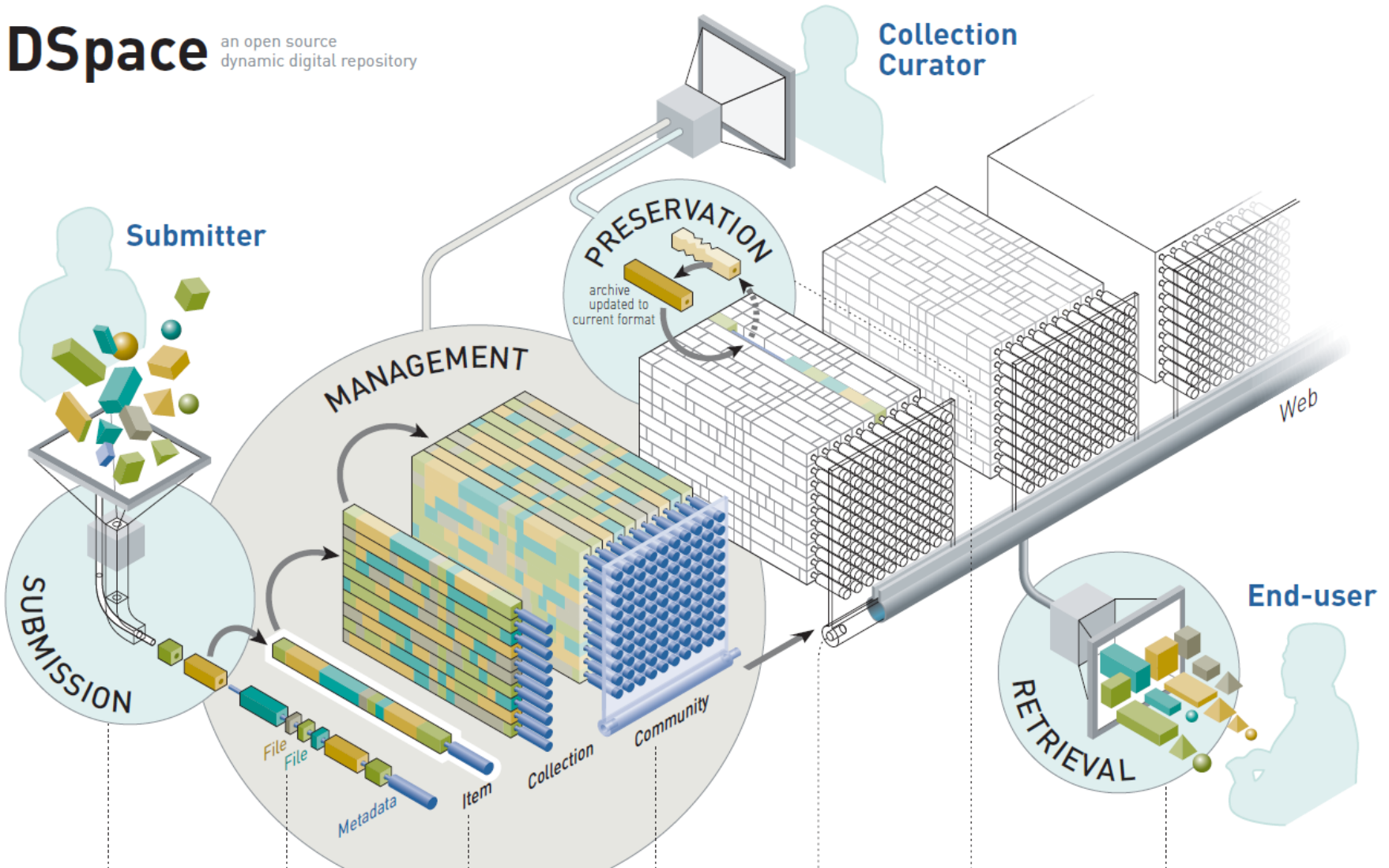
DSpace Platform

- Open Source
- Java web application
- Originally developed by MIT & HP
- First release in 2002



DSpace

an open source dynamic digital repository



1 Web-based interface makes it easy for a submitter to create an archival item by depositing files. DSpace was designed to handle any format from simple text documents to datasets and digital video.

2 Data files, also called bitstreams, are organized together into related sets. Each bitstream has a technical format and other technical information. This technical information is kept with the bitstreams to assist with preservation over time.

3 An **item** is an "archival atom" consisting of grouped, related content and associated descriptions (**metadata**). An item's exposed metadata is indexed for browsing and searching. Items are organized into **collections** of logically-related material.

4 A **community** is the highest level of the DSpace content hierarchy. They correspond to parts of the organization such as departments, labs, research centers or schools.

5 DSpace's modular architecture allows for creation of large, multi-disciplinary repositories that ultimately can be expanded across institutional boundaries.

6 DSpace is committed to going beyond reliable file preservation to offer **functional preservation** where files are kept accessible as technology formats, media, and paradigms evolve over time for as many types of files as possible.

7 The end-user interface supports browsing and searching the archives. Once an item is located, Web-native formatted files can be displayed in a Web browser while other formats can be downloaded and opened with a suitable application program.

Hardware Requirements

- Recommendations
 - Vary depending on scale [\[ref\]](#)
- Our Specs:
 - VMware Guest
 - Xeon 2.2GHz
 - 4GB RAM
 - 250GB HDD

Software Requirements

- OS
 - Linux/Unix
 - Windows Server
 - Mac OSX
- Web server
 - Apache Tomcat
 - Jetty
 - Resin
- Relational database
 - PostgreSQL
 - Oracle



Our IT dept. req'd
Windows Server 2012

Human Requirements

- Developer
 - HTML, CSS, JavaScript
 - Bonus: Java
 - Bonus: MVC framework experience
- System Administrator
 - Install DSpace
 - Configure DSpace
 - Manage DSpace, OS, Server software

Customization

- XMLUI built on Apache Cocoon framework

- Three tiers

- Style

- Low entry
 - CSS, XHTML

- Theme

- Mid entry
 - XSLT, XHTML, CSS

- Aspect

- High entry
 - Java, XSLT

We currently work
within these two tiers



JavaScript
is easier!

System Maintenance

- DSpace software updates
- More customizations ("Can we do..?")
- OS Updates and general server maintenance
- Backup

Future of DSpace

- Active development
- Better modularity/pluggability
- Maturing API
- Modern development framework (Angular 2)
- Easier Install!

MCStor Overview

Benefits of *MCStor*

- Open Access
- Preservation
- Scholarly Communication
- Author Rights

Organization

- *MCStor* is organized by communities and collections.
- A community may represent an academic school or department, campus activity or group, etc.
- A collection is a group of related digital items held in a community.
- An item is a digital file held in a collection.



Demo

MILLIGAN **Libraries**
P.H. Welshimer Memorial Library & Emmanuel Christian Seminary Library

Collaboration & Outreach

- Engage with students and faculty.
- Identify curriculum requirements / annual projects.
- Host a workshop.
- Take advantage of international initiatives, such as Open Access Week, to promote your IR.

MCStor

and



Celebrate Open Access Week

Learn about two exciting new platforms for supporting open scholarship: **MCStor**, Milligan College's digital repository for scholarly work created by faculty, staff and students and **Open Library of Humanities**, an international open access humanities "megajournal"

- **Monday, October 19, 4:00 – 4:45 PM**
Hopwood Room, P. H. Welshimer Memorial Library
- **Tuesday, October 20, 2:15 – 3:00 PM; 4:00 – 4:45 PM**
Hopwood Room, P. H. Welshimer Memorial Library
- **Wednesday, October 21, 2:15 – 3:00 PM**
Hopwood Room, P. H. Welshimer Memorial Library

mcstor.library.milligan.edu / www.openlibhums.org

OPEN  **International
ACCESS WEEK**

openaccessweek.org

Future Projects

- Milligan College Archives and Special Collections
- Video and Audio files
- Faculty Research
- OCR Workflow (We'd love to hear your recommendations!)

Questions?