DIGITAL ARCHIVES & PRESERVATION SYSTEMS

Part 4 Overview (part 4 of 7)

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Session Overview

- Digital archives and digital preservation systems.
- These open source tools are being developed and used in the digital archives and digital preservation communities to address the needs and gaps in systems for meeting standards, such as *OAIS, PAIMAS,* and *Trustworthy Digital Repositories.*
- They enable description, discovery, delivery, and preservation of digital collections.
- Some of these are currently being assessed and/or implemented at MIT Libraries.

Presented to MIT Libraries Staff on July 17, 2015.

Systems and Tools to be presented

- **ArchivesSpace** – archives collection management and discovery

archivematica®

- **Archivematica** – digital preservation system (processes files chosen for preservation and creates Archival Information Packages and Dissemination Information Packages)

atom
access to memory

- **(atom) Access to Memory** – archives and special collections discovery and delivery system and collections management system

Lifecycle Environment

Storage Pathways

Digital Content Management Workflow

External Content Creators

Archives Collections Security Requirements

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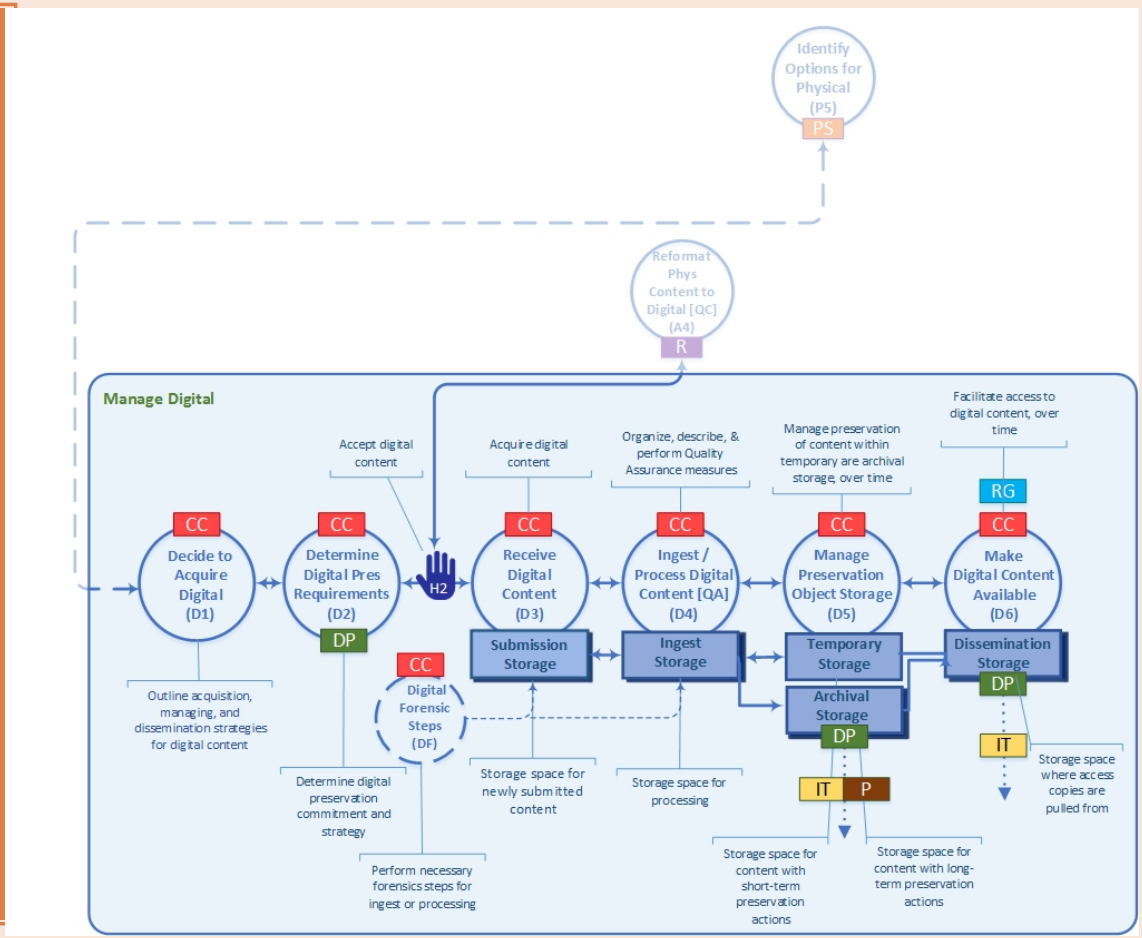
Manage Digital Workflow

Diagram showing steps in the Manage Digital Workflow and the Storage Areas.

Digital Content Management – Lifecycle Workflow [on the DCM wiki]



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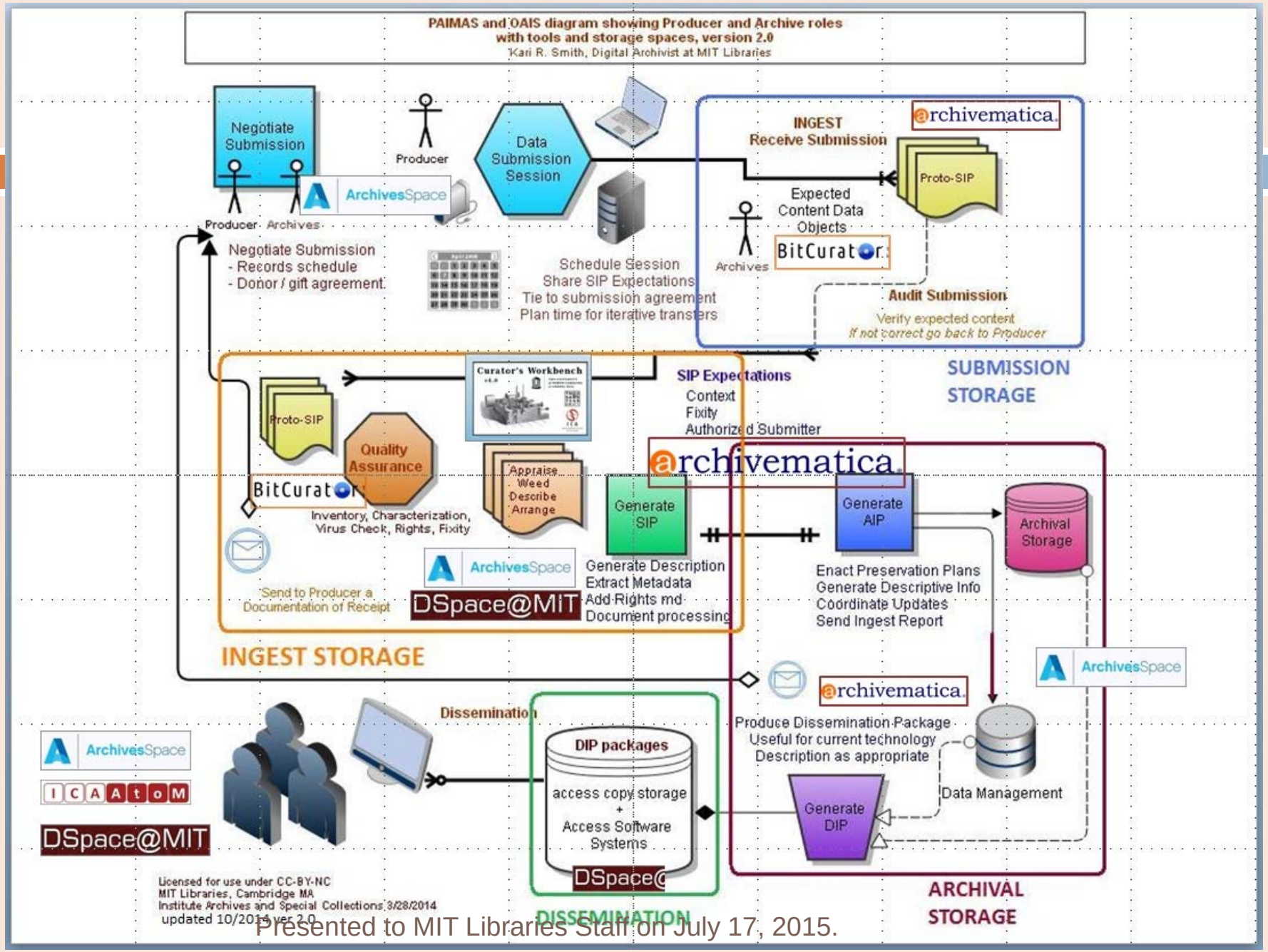
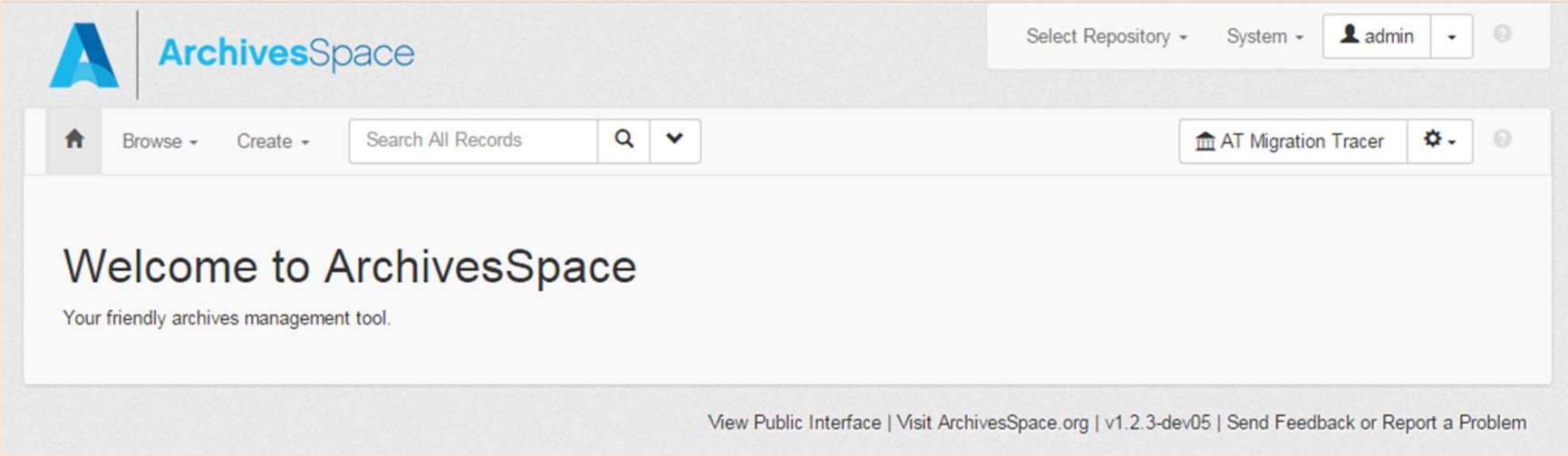

PAIMAS and OAIS diagram showing Producer and Archive roles
with tools and storage spaces, version 2.0
Kari R. Smith, Digital Archivist at MIT Libraries
Negotiate Submission
Producer
Data Submission Session
ArchivesSpace
Producer
Archives
Negotiate Submission
- Records schedule
- Donor / gift agreement
Schedule Session
Share SIP Expectations
Tie to submission agreement
Plan time for iterative transfers
INGEST
Receive Submission
archivematica
Proto-SIP
Expected Content Data Objects
Archives
BitCurator
Audit Submission
Verify expected content
If not correct go back to Producer
SUBMISSION STORAGE
Curator's Workbench
SIP Expectations
Context
Fixity
Authorized Submitter
Proto-SIP
Quality Assurance
BitCurator
Inventory, Characterization, Virus Check, Rights, Fixity
Appraise
Weed
Describe
Arrange
archivematica
Generate SIP
Generate AIP
Archival Storage
Send to Producer a Documentation of Receipt
ArchivesSpace
DSpace@MIT
Generate Description
Extract Metadata
Add Rights md
Document processing
Enact Preservation Plans
Generate Descriptive Info
Coordinate Updates
Send Ingest Report
INGEST STORAGE
ArchivesSpace
archivematica
Produce Dissemination Package
Useful for current technology
Description as appropriate
Data Management
Dissemination
DIP packages
access copy storage
+
Access Software Systems
DSpace@
Generate DIP
ArchivesSpace
ICAAtoM
DSpace@MIT
ARCHIVAL STORAGE
DISSEMINATION
Licensed for use under CC-BY-NC
MIT Libraries, Cambridge MA
Institute Archives and Special Collections 3/28/2014
updated 10/2014 ver 2.0

ArchivesSpace

- Archives Management System

  "Software that provides integrated support for the archival workflow, including *appraisal*, *accessioning*, *description*, *arrangement*, *publication of finding aids*, *collection management*, and *preservation*."



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http://test.archivesspace.org:8080/ http://archivesspace.vmi.edu/

Access to Memory (atom)

- Archives Management System

  Software that provides integrated support for the archival workflow, including appraisal, accessioning, description, arrangement, publication of finding aids, collection management, and preservation.

- Digital Content Delivery system

- http://demo.accesstomemory.org/

Presented to MIT Libraries Staff on July 17, 2015.

Archivematica

- Process your files for Preservation and Delivery
- May include arrangement & deaccessioning
- Workflow engine that
  - Sends your files through a set of tools
  - You make decisions during the workflow
  - You set the locations for the files to live
  - Archivematica collects and combines the metadata about all of the tasks, processes, and results into a METS file and uses PREMIS semantics
  - Archivematica produces Bags (Bag-It)

Presented to MIT Libraries Staff on July 17, 2015.

atom
access to memory

atom is back- and front-end

Collections management
Collections description

Collections description delivery
Digital collection objects delivery

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Description of atom

- It is a web-based, open source application for standards-based archival description and access in a multilingual, multi-repository environment.

- Archivematica is bundled with AtoM and is designed to upload Dissemination Information Packages (DIP) to AtoM

Primary Functions

Standards-based

AtoM was originally built around International Council on Archives (ICA) descriptive standards:

- General International Standard Archival Description (ISAD) - 2nd edition, 1999
- International Standard Archival Authority Record (Corporate bodies, Persons, Families) (ISAAR) - 2nd edition, 2003
- International Standard For Describing Institutions with Archival Holdings (ISDIAH) - 1st edition, March 2008
- International Standard For Describing Functions (ISDF) - 1st edition, May 2007
- AtoM supports Simple Knowledge Organization System (SKOS) - W3C Recommendation 18 August 2009.
- AtoM is designed to be flexible enough for adaptation to other descriptive standards; see Descriptive standards for a full list of other standards currently supported.

Multilingual

- All user interface elements and database content can be translated into multiple languages. AtoM comes with several translations installed.

Multi-repository

- AtoM can be used by a single repository for its own descriptions or it can be set up as a multi-repository "union list" accepting descriptions from any number of contributing collections.

Possible Integration

ArchivesSpace - atom – Archivematica – atom

- Describe collections in ArchivesSpace + Accession, etc.
  - Export that descriptive info at EAD
  - Import it into atom as a Collection Description

- Run digital collection files through Archivematica
- Link the DIP files to the atom descriptions
- Send the location and file info to ArchivesSpace

Full collections info in ArchivesSpace as master

Delivery of collection description + files to User

Demo of atom

Atom Community https://wiki.accesstomemory.org/Community

Digital Sustainability Lab – Archivematica instance

[MIT IP only] http://libaxis22.mit.edu/

Manual https://www.accesstomemory.org/en/docs/2.2/

atom demo site http://demo.accesstomemory.org/

Examples https://wiki.accesstomemory.org/Community/Users

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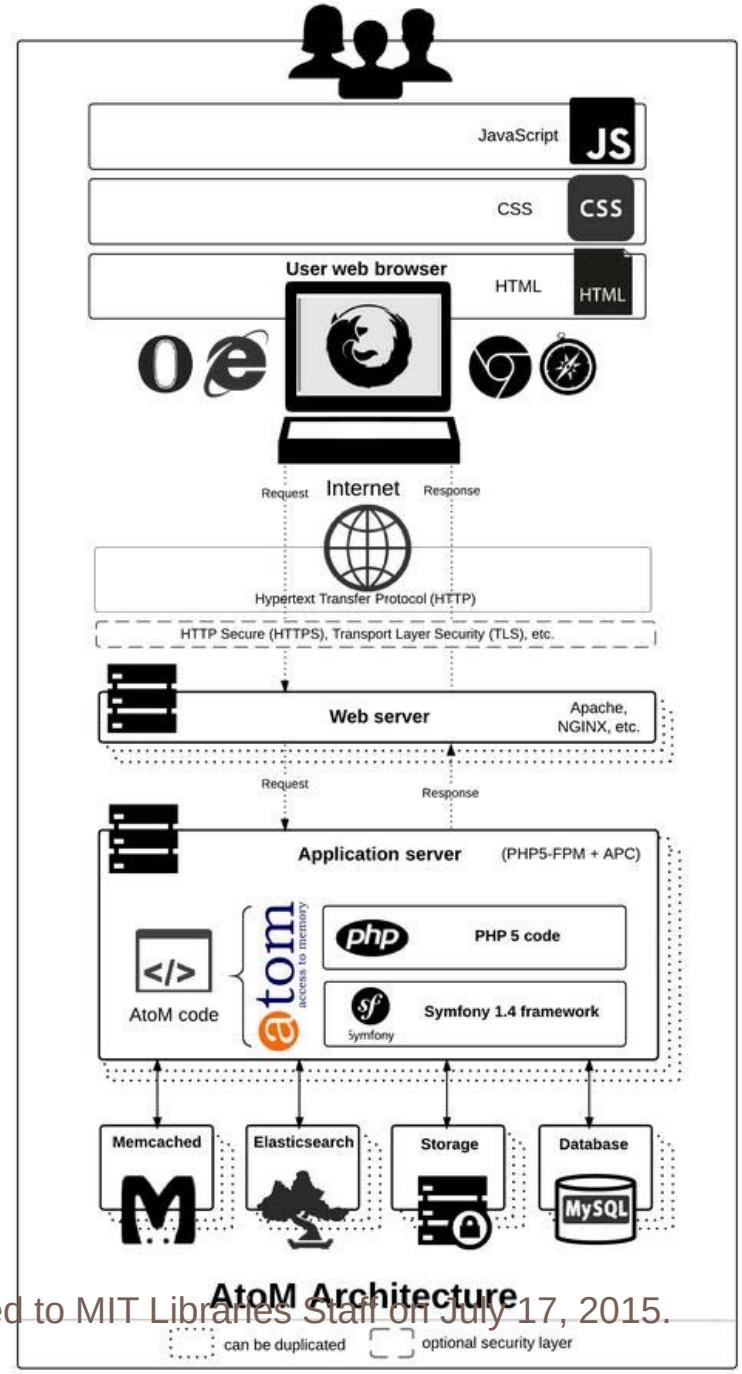
AtoM architecture diagram



References

Artefactual Systems, atom User Guide: https://www.accesstomemory.org/en/docs/2.2/
Engineering the Future of the Past: http://libraries.mit.edu/digital-archives/integrating-tools/
DP Workshop – Management Tools: http://dpworkshop.org/workshops/management-tools/workflows

THANK YOU FOR YOUR ATTENTION!

JULY 14 (11AM): ARCHIVEMATICA AND STORAGE SERVICE
JULY 17 (10AM): ACCESS TO MEMORY (ATOM)

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