

Metadata Requirements for Time-Based Media

Sharon Farnel and Umar Qasim

University of Alberta Libraries

NADDI 2016

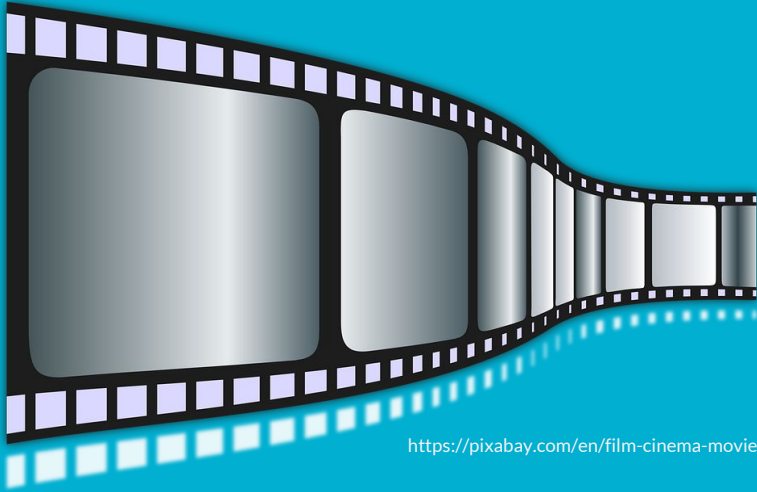
Time-based Media ...



Have duration as a dimension

Unfold over time

Depend on technology



<https://pixabay.com/en/film-cinema-movie-video-158157/>



<https://flic.kr/p/atrcMx>



<https://www.youtube.com/watch?v=ABZAgIRfdcU>

Audio, Video, Multimedia Presentations ...

Time-based Media

*Present specific
challenges for
conservation,
description, and access*

Require timely
delivery and
processing

Depend on
technology ...

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... which must be able to decode and deliver the content in a meaningful way



... which can
fail or become
obsolete



Often have
complex
intellectual
property
considerations

Metadata for Time-based Media

“The archiving, retrieval, and management of multimedia content becomes very hard if not practicably infeasible if no or only limited metadata is provided”¹

¹Saathoff, C., and Scherp, A. (2009). M3O: The Multimedia Metadata Ontology. http://ceur-ws.org/Vol-539/paper_9.pdf

Metadata for Time-based Media

Technical

Structural

Rights

Descriptive

Technical Metadata

AudioMD

PBCore

EXIF

FITS

AES Core Audio

VideoMD

FFmpeg

Captures technical characteristics of the object and its component parts

Structural Metadata



Captures the structure of complex digital objects

Descriptive Metadata

MODS

METS

EBUCore

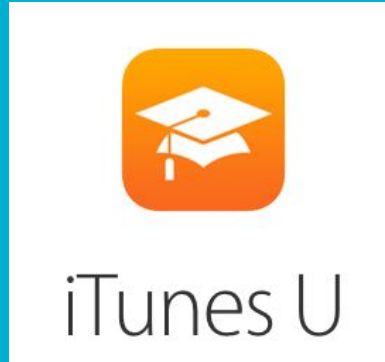
DC

PBCore

MARC

Captures details on the 'who', 'what', 'when' and 'where' of an object

Repositories for Time-Based Media



Each of which provides its own metadata solutions

UAL Time-based Media Repository Features

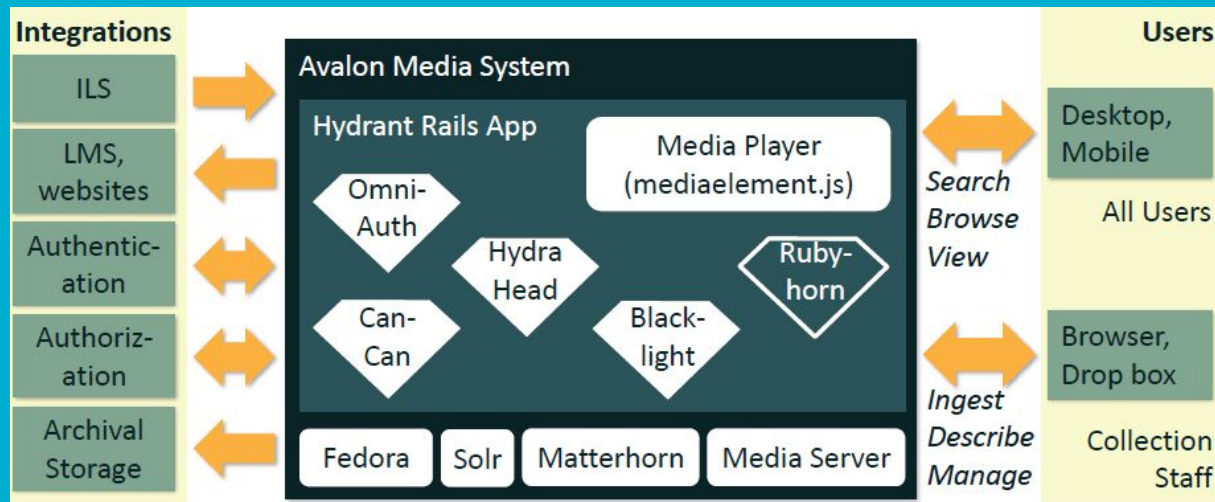
- Integration with the UA's CCID authentication
 - Integration with course registration and learning managements systems, including eClass
 - Access-controlled audio/video streaming
 - Audio/video playback capability
 - Tools for making playlists and clips and ability to easily embed content into websites
 - Deposit, search, and discovery functionality
 - Powerful multimedia workflow management
 - Support for standards-based metadata and persistent URLs
 - Ability to accommodate special requirements for digital preservation and long-term archiving
 - Alignment with the UAL's Digital Asset Management System (DAMS) strategy
-

UAL Technical Landscape

- Hydra
- Blacklight
- Fedora
- Solr
- Ruby
- Matterhorn
- Wowza
- Open source culture



ERA Streaming Media repository



UAL Avalon Media Repository – Workflow

- ❖ Manage Files
- ❖ Resource Description
- ❖ Structure
- ❖ Access Control
- ❖ Preview

The screenshot displays the UAL Avalon Media Repository interface. At the top, the logo 'avalon MEDIA SYSTEM' is visible on the left, and the user 'archivist1@example.com' with a 'Sign out>>' button is on the right. A navigation bar contains links: 'Browse', 'Manage Content', 'Manage Groups', and 'Manage Selected Items (0)'. A search bar is located on the right side of this bar.

The main content area is titled 'Testclass 101 Moodle Resources Collection > First course video'. It features a sidebar on the left with several sections: 'Manage file(s)' (with a sub-link 'Associated bitstreams'), 'Resource description' (with a sub-link 'Metadata about the item'), 'Structure' (with a sub-link 'Organization of resources'), 'Access Control' (with a sub-link 'Who can access the item'), and 'Preview' (with a sub-link 'How end users see the item'). A red button labeled 'Delete this item' is positioned below the sidebar.

The main content area has a section titled 'Manage file(s)' with a sub-section 'Associated files'. Below this, a note states: 'For items with multiple files, enter a display label for each file. Users will click on these labels to switch between files.' A table follows with the following columns: 'Type', 'Section label', 'Permalink', 'Thumbnail', 'File name', and 'Size'. The table contains one row with a file icon in the 'Type' column, an empty 'Section label' input field, an empty 'Permalink' input field, a thumbnail image, the file name 'small.mp4', and the size '375 KB'. A red 'X' icon is in the 'Size' column.

Below the table is a section titled 'Upload through the web' with a note: 'Uploaded files must not exceed 250 MB'. It includes an empty input field and a 'Select file' button.

The next section is 'Import from a dropbox', with a note: 'Use the dropbox to import large files. Attach selected files after uploading. Files will begin processing when you click Save and continue.' It features an 'Open Dropbox' button and a text box containing the Dropbox location: 'Dropbox location: `stfp://localhost/srv/avalon/dropbox/Moodle_Collection`' and the instruction 'Contact your system administrator for more information.'

At the bottom, there are two buttons: 'Save' and 'Save and continue'.

Metadata Workflows

Import of catalogue record by UAL staff at point of need, e.g., course reserve request

Transformation of existing collection metadata created by external user, e.g., faculty research collection

Consultation, instruction, templates for metadata creation, e.g., greenfield project

External user self-deposit and description, e.g., MFA thesis

UAL Avalon Media Repository – Metadata

- MODS for descriptive metadata
 - Metadata entry form
 - Import MARC metadata from local catalogue
 - Batch ingest via csv metadata template
- Structural metadata stored within Fedora structure
- Content metadata in a system-specific schema (avalon_structure.xsd)
 - Multiple files within a single Avalon object
 - Structure within a single content file
- Rights metadata captured in appropriate descriptive metadata element(s)



Big Ten, Big Time, 1971

Main contributor

Northwestern University (Evanston, Ill.)

Date

1971

Summary

Big Ten highlight reel of the 1971 season. Narrated by Bill Flemming. Music by the Purdue University "All-American" Band. Conducted by Al G. Wright and William D. Kisinger. NU Coach during the 1971 season: Alex Agase.

Contributors

Wright, Al G.; Kisinger, William D; Flemming, Bill, 1926-2007

Genre

Sports

Subjects

Northwestern University (Evanston, Ill.)--Football--History;
Northwestern Wildcats (Football team); Big Ten Conference
(U.S.)--Football--History; Agase, Alex, 1922-2007

Location

Various

Collection


Northwestern University Football Films

Unit

Northwestern University Archives

 Share

Simple object record as seen by user



Sections

1. Highlights (11:11)

1. Ohio State, 2nd quarter (02:14)

2. Gophers at Minneapolis (03:24)

3. Illini at home (03:25)

4. Wisconsin at home (02:05)

Northwestern Football highlight reel, 1935

Main contributor

Northwestern University (Evanston, Ill.)

Date

1935-12-31

Summary

Touchdown highlights from games against Ohio State University, University of Minnesota, University of Illinois, and the University of Wisconsin during the 1935 season. Coach: Lynn "Pappy" Waldorf.

Contributor

Waldorf, Lynn O., 1902-1981

Genre

Sports

Subjects

Northwestern University (Evanston, Ill.)--Football--History; Northwestern Wildcats (Football team); Ohio State University--Football--History; Ohio State Buckeyes (Football team); University of Minnesota--Football--History; Minnesota Golden Gophers (Football team); University of Illinois at Urbana-Champaign--Football--History; Fighting Illini (Football team); University of Wisconsin--Football--History; Wisconsin Badgers (Football team)

Collection

Northwestern University Football Films

Unit

Northwestern University Archives

Language

English

Structured object as seen by user

Roadmap

- User stories
- Service model
- Workflows
- Soft launch spring 2016
 - Seed collections
- Launch fall 2016
 - Seed collections
 - Integration with e-learning systems
- Integration with digital asset management system
 - Preservation policies and workflows

Thank you!

Questions?

Contact:

Sharon Farnel, Metadata
Coordinator ([sharon.
farnel@ualberta.ca](mailto:sharon.farnel@ualberta.ca))

Umar Qasim, Digital Preservation
Officer (umar.qasim@ualberta.ca)
