



Bringing IIF to the DSpace Community

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About DSpace



- Over 1000 organizations currently use DSpace open source software in a production or project environment.
- The most common use is by research libraries as an institutional repository for publications and research data.
- DSpace supports many file formats, *but historically has lacked good support for presenting and sharing digital objects online.*
- Within the DSpace community interest in IIIF has existed for several years. Both local and commercially-supported solutions (4Science) have been created.
- The IIIF integration presented here is officially distributed as part of DSpace 7.

DSpace IIIF Timeline

DSpace 7.1 Release: October 2021

- Initial IIIF support: Presentation API 2.1.1, Search API (experimental), Mirador 3.

DSpace 7.2 Release: February 2022

- Batch import of IIIF-enabled Items and bulk processing operations.

Anticipated in DSpace 7.4

- Full support for Search API and indexing

Global DSpace Configuration

DSpace REST Backend:

- Edit IIIF configuration for your local requirements.
- Complete separate installation of IIIF image server (e.g. Cantaloupe)

DSpace Angular Frontend & Embedded Mirador 3 Viewer:


































- Mirador Javascript configuration.
- Download and Share plugins (enabled by default).

DSpace IIIF Metadata

- Most behavior is driven by metadata at the Item and Bitstream (i.e. image) levels.
- Tools for importing and updating IIIF items.
 - Batch import of IIIF Items.
 - Batch metadata editing.
 - Bulk Canvas dimensions processing.
 - Search indexing (under development).
 - Collection templates.
- Metadata can also be managed via the administrative user interface.

Next a quick look at examples using the DSpace 7 Administrative Interface.

Item Level Metadata (Admin User Interface)

dc.description. statementofresponsibility	Willamette University	  
dc.identifier	19190401	  
dc.identifier.citation	volume 12 issue 2 edition 1	  
dc.identifier.other	https://doi.org/10.31096/WUA066-Scene-19190401	  
dc.identifier.uri	https://digitalcollections.willamette.edu/handle/10177/7126	  
dc.language	English	  
dc.rights	All rights reserved by Willamette University	  
dc.title	Willamette University Bulletin (Salem, OR), 1919-04-01	  
dc.type	text	  
dspace.iiif.enabled	true	  
iiif.search.enabled	true	  



Enables IIIF
for this Item



Enables Search
Option

Image Level Metadata (Admin User Interface)

Selected Format

If the format is not in the above list, select "format not in list" above and describe it under "Describe new format".

IIIF Label

Canvas label for this image. If not provided default label will be used.

IIIF Table of Contents

Adding text here makes this the start of a new table of contents range.

IIIF Canvas Width


The canvas width should usually match the image width.

IIIF Canvas Height


The canvas height should usually match the image height.



Image label (optional).



Range (optional). Can be nested as in this example:
(Chapter 1|||Overview).



Canvas dimensions (recommended). If absent DSpace sets dimensions to those of the first image. Bulk processing for all images in a collection or community is available (and was used here).

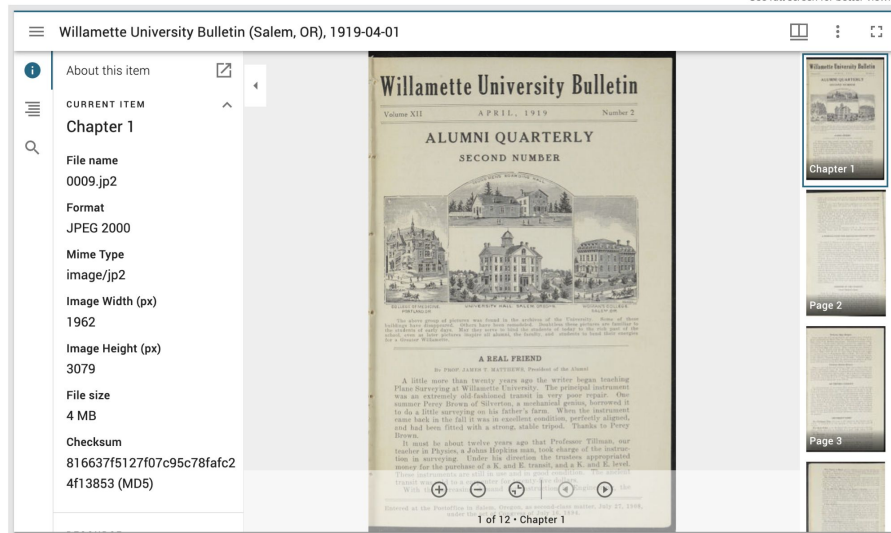
Embedded Mirador Viewer

Search option
added
dynamically
based on Item
metadata.

Image and Item
metadata fields
are defined in
global DSpace
backend
configuration.

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Use full screen for better viewing.



Viewer most layout is
defined in the default
Mirador configuration.
This panel is
dynamically hidden for
single images.

Willamette University Bulletin (Salem, OR), 1919-04-01



Citation

volume 12 issue 2 edition 1

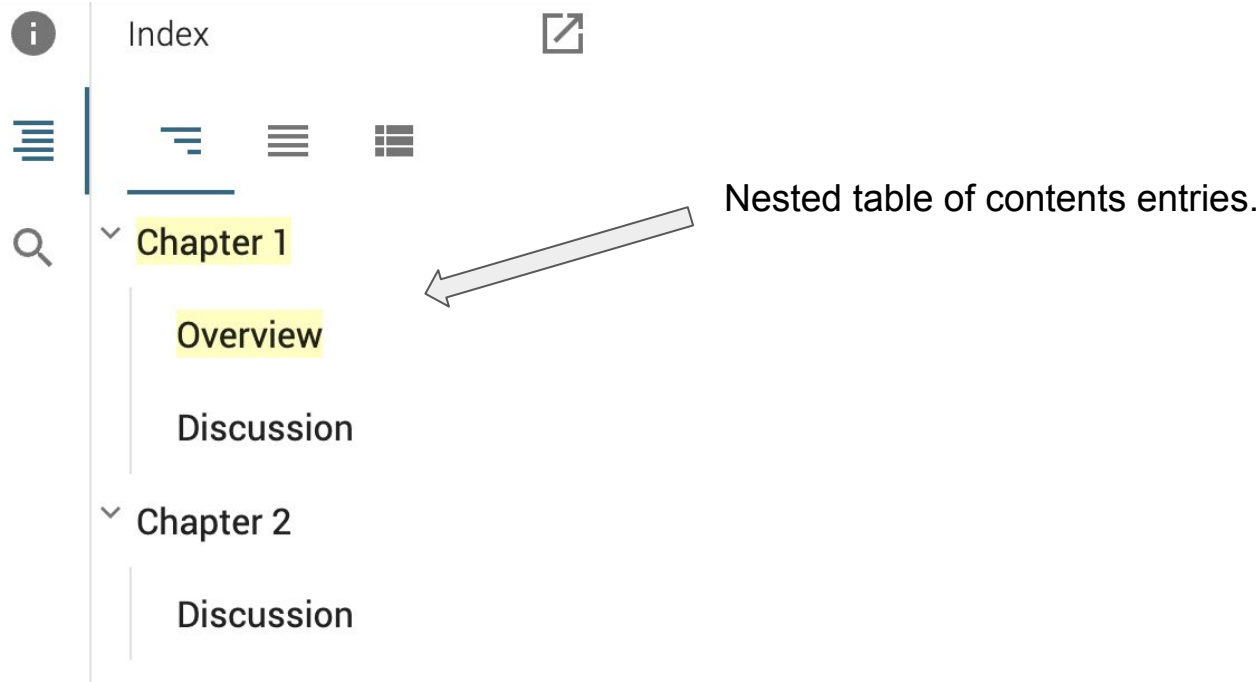
URI

<https://digitalcollections.willamette.edu/handle/10177/7126>

Collections

[Alumni Publications](#)

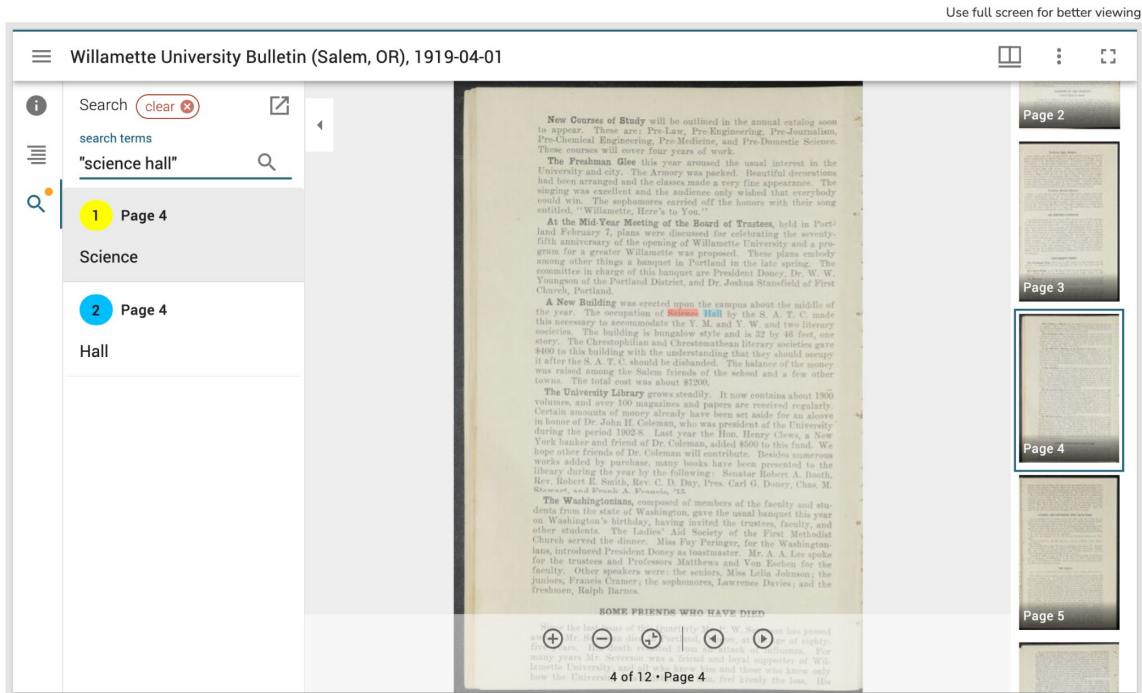
Nested Contents in Mirador 3



Search API Result

This search was initiated in DSpace and passed through to the Mirador viewer and IIF Search.

Use full screen for better viewing.



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Search clear

search terms

"science hall"

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Science

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Hall

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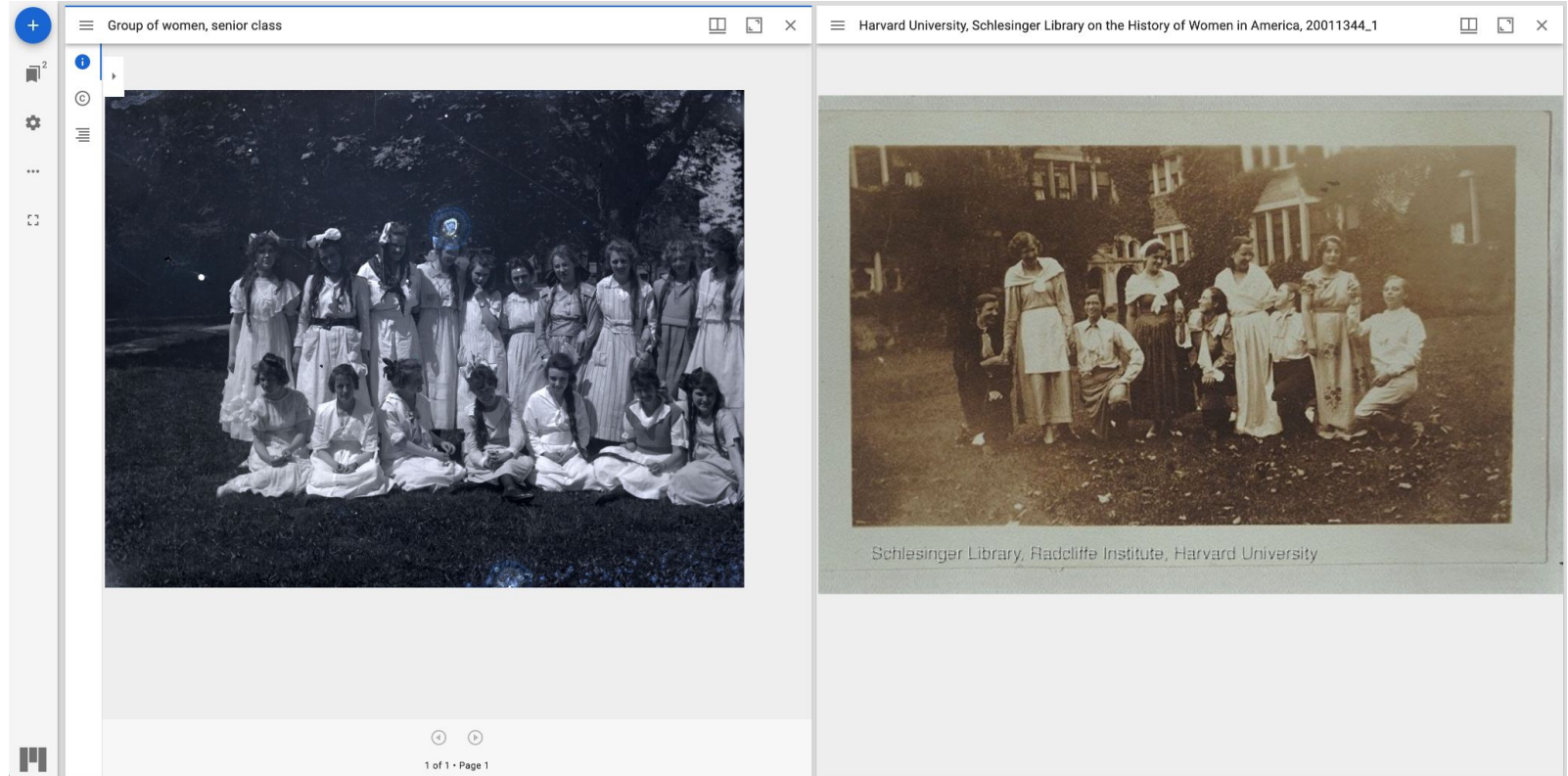
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Sharing Digital Objects



Left image is
from DSpace

Plans for Future Development

- Full support for IIIF search and indexing (hOCR and ALTO formats).
- Tiered IIIF image access based on the DSpace user's authorization.
- Support for IIIF Authentication API.
- Support for IIIF Collections.
- Presentation API v3.
- Updated user documentation.

Community Resources

- Join DSpace IIIF Slack Channel:
<https://dspace-org.slack.com/archives/C4LVB5069>
- IIIF Configuration Documentation:
<https://wiki.lyrasis.org/display/DSDOC7x/IIIF+Configuration>
- Presentation at Open Repositories 2022 (June 6-9):
[Bringing IIIF to the DSpace community](#)

Thanks to the digital library team at the Bavarian State Library for [Presentation API 2.1.1 bindings](#) and the [Solr OCR Highlighting plugin](#).