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YODL2: Developing a search interface for multimedia content at the University of York

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Overview

- YODL : York Digital Library's multimedia search interface to Fedora
- JISC funded, code named YODL-ING
- Our requirements, design decisions and challenges faced implementing the new search interface – YODL2, focusing on the image search aspect of our multimedia repository.

JISC

Overview

- YODL holds ~10,000 objects - largely images to support teaching within the History of Art department
- Digitisation of local content (19th C glass lantern slides and collections from Borthwick Institute for Archives)
- While audio content is being prepared for digitisation and should be added shortly

Requirements

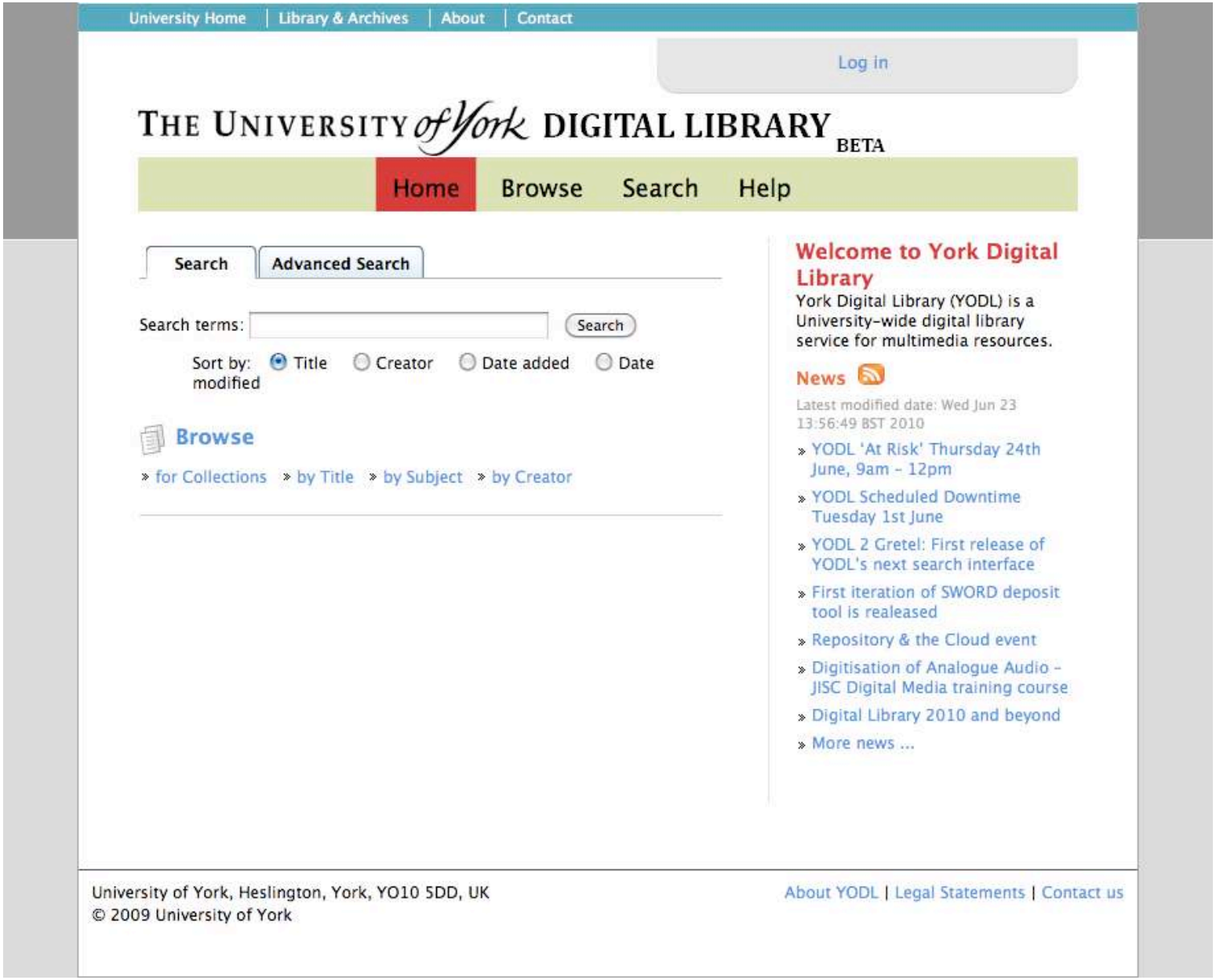
Scenarios for image searching

- Search by period, search by single period eg. 'early 14th century' and multiple periods for instance 14th and 15th century
- Narrowing the returned results by categories like type, artist, location, date period

Requirements

Scenario for viewing images

- View detailed description of each image
- To assist the detailed study images for instance examining the details of an engraving, being able to zoom and pan with an image is required
- Manuscripts, books and other types of images will need be viewed in a sequence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Welcome to York Digital Library
York Digital Library (YODL) is a University-wide digital library service for multimedia resources.
News
Latest modified date: Wed Jun 23 13:56:49 BST 2010
» YODL 'At Risk' Thursday 24th June, 9am - 12pm
» YODL Scheduled Downtime Tuesday 1st June
» YODL 2 Gretel: First release of YODL's next search interface
» First iteration of SWORD deposit tool is realeased
» Repository & the Cloud event
» Digitisation of Analogue Audio - JISC Digital Media training course
» Digital Library 2010 and beyond
» More news ...
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Reasons for choosing Muradora

- Out of the box UI to Fedora
- Search and Indexing facilities
- Advanced collection level, resource and datastream level access control, beyond the basic fedora 2.2.4 offering – see Muradora/Drama

Muradora

Reasons for moving away from Muradora

- Muradora development was halted
- York has specific requirements for delivering multimedia content, which was not satisfied by the default Muradora UI
- Performance issues reached with just 10000 objects

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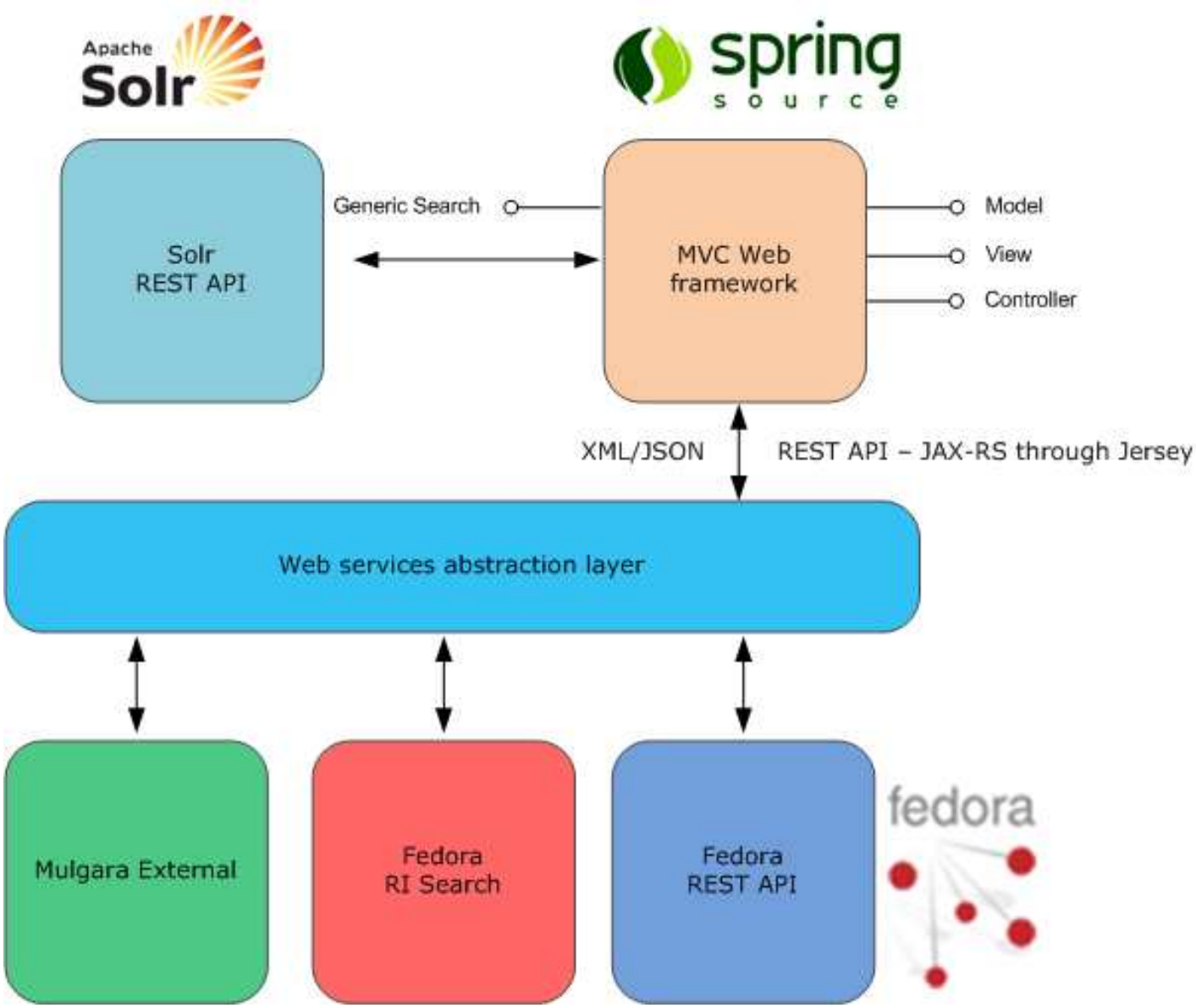
A new beginning

- Drawing on the good architecture principles, a light weight bespoke interface for York's needs is being developed
- An initial prototype in ASP.NET MVC in C# was produced followed through with migration to a Java based technology stack
- Demo

Demo

Technical architecture



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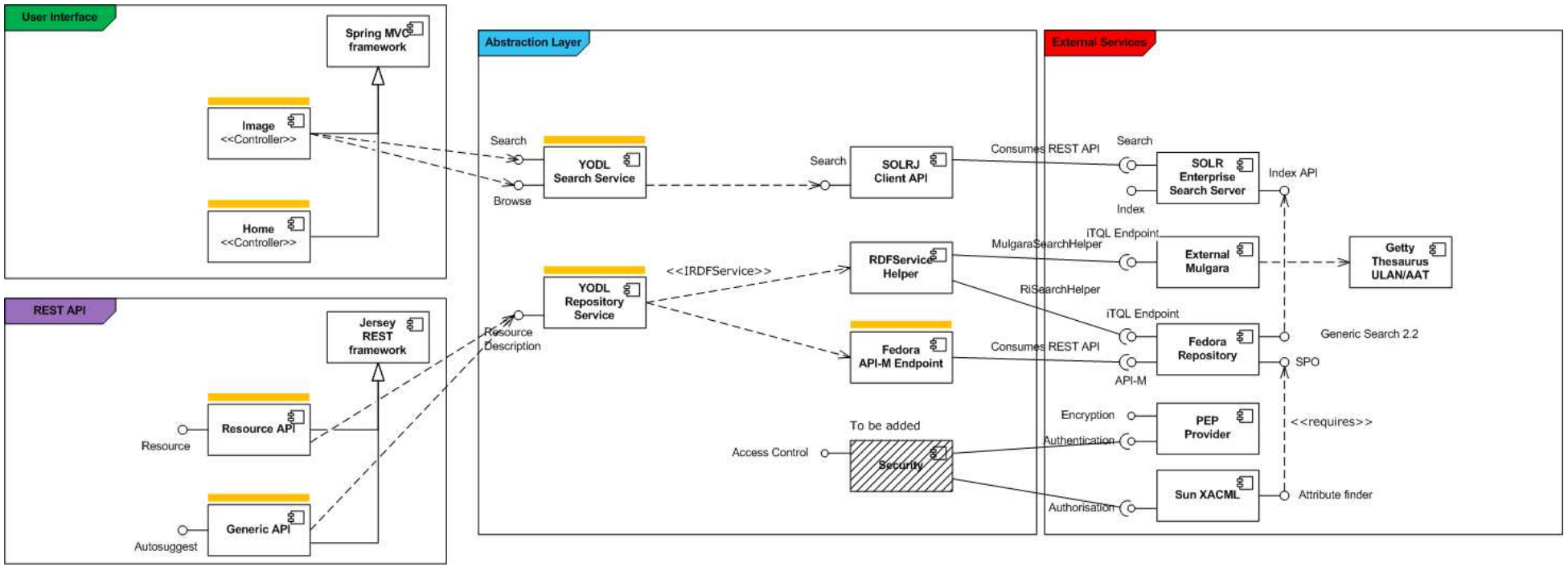
Technical architecture



Design decisions

Survey of RIA plug-in technology to implement these viewers

- Page sequence application
- Zoomable user interface and supporting server components
- Relationship discovery

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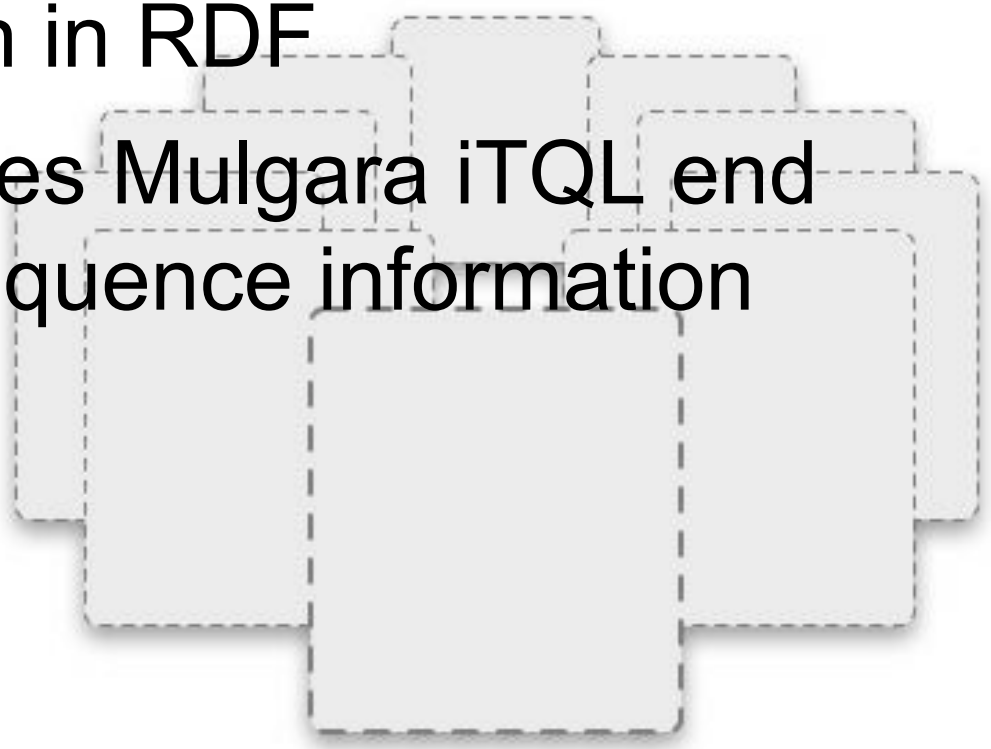
Survey of plug-in technology

	License	Accessibility	Cross platform	Technical Features	Development tools
JavaFX	Runtime is proprietary. NetBeans plugin is released under GPL v2 & CDDL	Basic features using community plug-in "fxaccessible". No vendor lead initiatives.	Runs on top of native java run time, plug-in based installation on browsers. Cross platform support inherited from Java Runtime Environment, works on Linux, Mac and Windows.	Web services support REST and SOAP, along with Basic Auth. for REST. XML and JSON formats are acceptable. Unit testing framework available, extended from IDE.	Limited IDE support with Netbeans or eclipse. JavaFX author to be released later this year.
Flex	Runtime – Proprietary Flex SDK – Mozilla Public License	Vendor lead initiatives present, set of accessible components available. Some assistive technologies concerns on non windows platforms eg Mac OS X.	Good cross platform support inherited from the Adobe Flash player run time environment, works on Linux, Mac and Windows. Plugin based installation – 97% of pc's purported to have this installed.	Web services support REST and SOAP. along with Basic Auth. for REST access. Basic unit testing framework in place.	Adobe Flexbuilder is the fully featured development tool.
Silverlight	Runtime – Proprietary Some components – Microsoft Public License	Accessibility initiatives present, although a little dispersed. Limited to a few working examples like AMP and online tutorials.	Cross platform support is good albeit a little limited, works on Windows and Mac. Linux support is limited to an open source alternative called moonlight. Plugin based with about 30% of pc's having this installed.	Web services support REST and SOAP, along with Basic Auth. for REST. XML and JSON formats are acceptable. Unit testing framework available, extended from Visual studio.	Visual studio and Expression blend are the recommended development environments.

Viewer : Sequence images

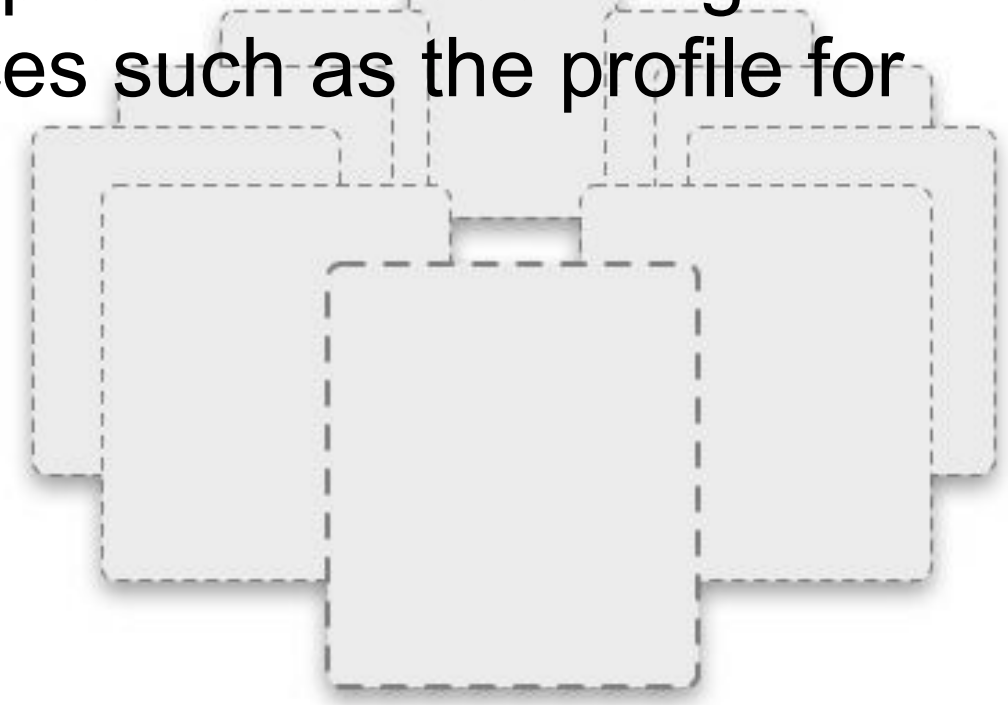
- Ruben Swieringa flex component for book
- Open source component
- Simple atomic content model; each page is stored as its own object in Fedora with sequence information in RDF
- Initial prototype queries Mulgara iTQL end point to gather the sequence information
- Demo



Viewer : Sequence images

Prototype at present, for production release we hope to

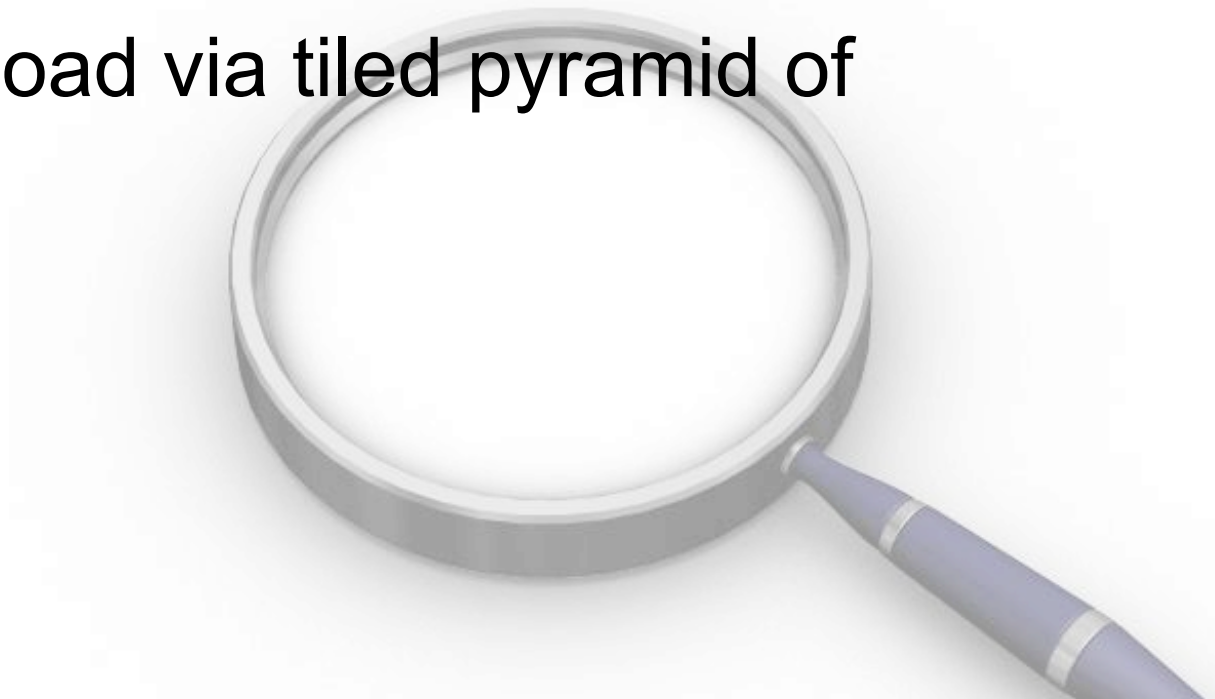
- migrate to a composite data model in Fedora
- backed by a METS profile for describing pages and sequences such as the profile for DFG viewer



Viewer : Zoom

Image zoom can be implemented a number of way

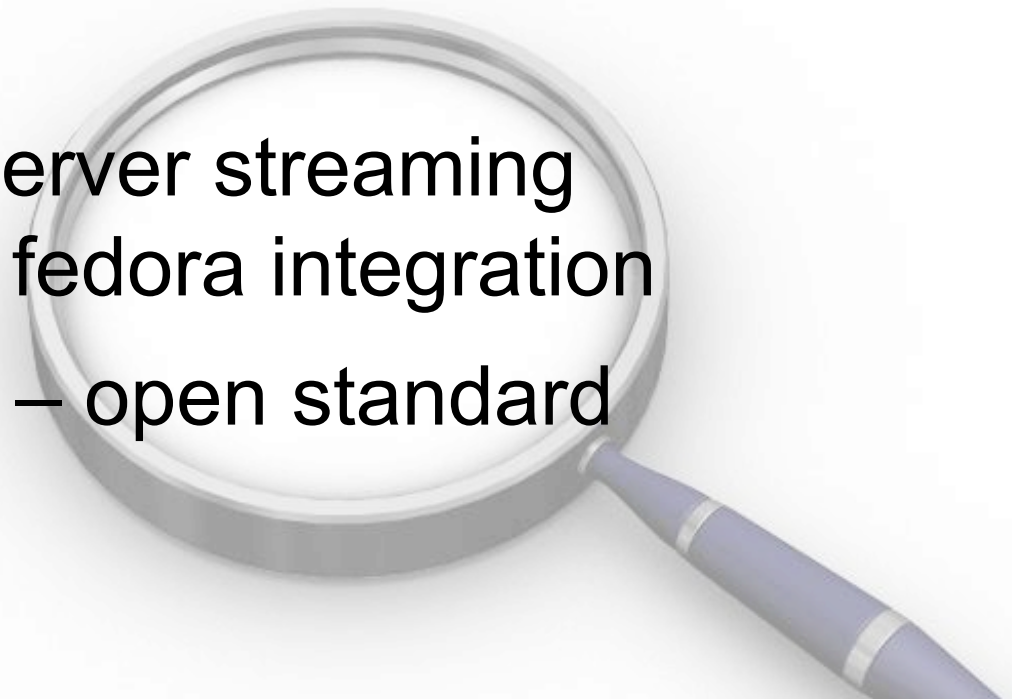
- a single resolution image being download and zoomed/panned by the client
- streamed images
- progressive download via tiled pyramid of images



Viewer : Zoom

A survey of zoomable user interface solutions:

- Zoomify – Hosted streaming service - proprietary
- IIPImage – Client server streaming solution, open source
- Djakota (J2K) – Client server streaming solution, open source – fedora integration
- Seadragon Deep Zoom – open standard



Viewer : Zoom

- IIPImage recently added support for TIFF delivery as Zoomify and DeepZoom compatible protocol
- Allows data to be viewed in many client viewers from OpenZoom flash viewer, Seadragon ajax interface and viewers on the iPhone/iPad

Viewer : Zoom

- Deep Zoom link

Viewer : Discovery

- Acuity have developed a vocabulary service which exposes Getty ULAN data as RDF SKOS
- Translation between structured ULAN and SKOS is assisted by tools output from the JISC funded MultimediaN's project
- The services can queried by SPARQL or iTQL over HTTP GET/POST

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Viewer : Discovery

- This service has three key aims
  - Assist in cataloging process, by drawing terms from Getty vocabulary
  - Enrich the underlying VRA metadata by drawing additional data about a creator
  - Encouraging the discovery of relationship between terms
- Demo

Viewer : Discovery

Home Search Browse Help Contact

Home > History of Art > Rethinking the Baroque

About the work

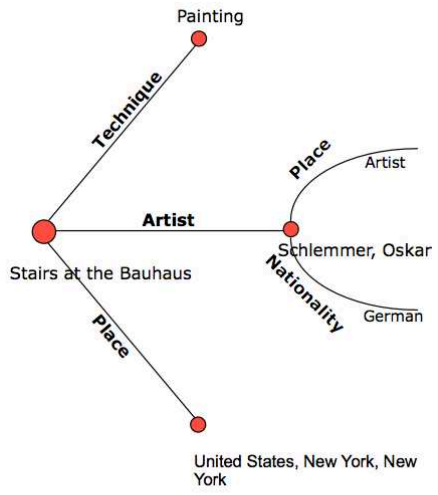
Title	Stairs at the Bauhaus
Artist	Schlemmer, Oskar
Date	1928
Type	Painting
Materials	Oil on canvas
Technique	Painting
Location	United States, New York, New York
Culture	Bauhaus and Weimar Culture
Style/ Period	Art history
Subject	Students ascend the staircase of the Dessau Bauhaus

About the image

Type	Image from publication
Photographer	Herring, Matthew
Source	Eberle, Matthias, World War I and the Weimar Artists, (New Haven: Yale, 1985), ISBN 0300035578, p. 86
Rights	Scanned under the terms of the CLA Photocopying and Scanning HE Licence. Access is restricted to Course Users associated with Courses of Study for which this resource is deemed necessary. ..

Show XML meta data

< Back to search results

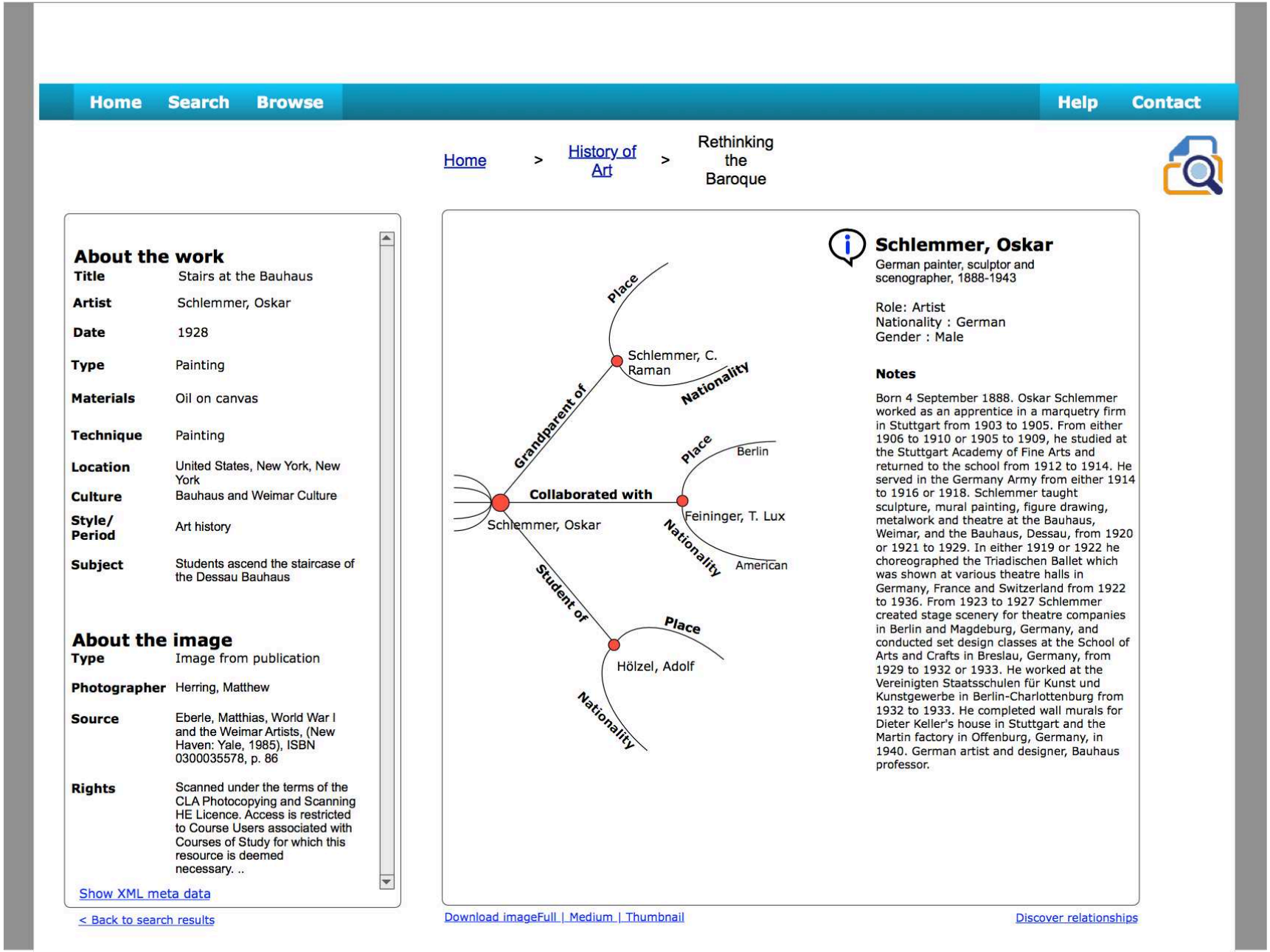


A way of exploring relationships between terms present in Getty, this could be backed by the work done by Steve B.

Download imageFull | Medium | Thumbnail

Discover relationships

Viewer : Discovery



Summary

YODL2

- Presented an overview, architecture and demo
- Requirements for image viewing
- Our design decisions

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Thank you for your attention.

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Any questions?