Omeka, Mirador and Viscoll: Developing modular, interoperable tools with IIIF

Alexandra Bolintineanu and Rachel Di Cresce

DPLAfest 2017

https://digitaltoolsmss.library.utoronto.ca/
In Its depths I saw contained, bound by love in one volume, the scattered leaves of all the universe.

Dante Alighieri, *Paradiso*, Canto XXXIII
Digital Tools for Manuscript Studies

University of Toronto Library

PI: Sian Meikle
Focus: Within IIIF, tools to collect, annotate, organize, and exhibit reconstituted book collection

Old Books, New Science Laboratory

PI: Alexandra Gillespie
Focus: John Stow’s book collection, reconstituted
John Stow (1505-1625)
• 93 MSS, 24 Printed Books (117 books total)

• 64 MSS positively attributed to Stow
Stow’s Books

Collect
Tag, Annotate, Transcribe
Organize & Search
Exhibit & Narrate
Old Books, New Science
Matthew Parker’s Printed Books
John Stow’s Books
Catalogues of Early Modern Reading
Collections

Users can curate collections of digital items

Images  Audio  Videos

Performances  Lesson Plans
Community

- Already widely adopted
- Mellon Award for Technology Collaboration (2008)
- Vibrant, supportive user community
Teaching with Omeka: THATCamp Pedagogy

Jeffrey McClurken
Amanda French

Saturday, 10/15, 1:30-2:30pm, room TBA
Vassar College
IIIF (International Image Interoperability Framework)

• Emerging international standard

• Consistent digital image delivery and annotation across multiple digital libraries
Technology-in-practice

User community

Technology-in-practice

Organizational culture

Technology
IIIF

Digital Archives

Technology-in-practice

IIIF Branching “Stack”

Organizational culture’s values: high-quality data; data integrity; archive control over images
Even doorknobs have politics in that they may be round, requiring a human hand to turn them, or shaped as levers, such that a person with a prosthetic limb or an armload of groceries with one free elbow can still successfully use them. This is more than simply a matter of utility. Both designs are political in that they presume and construct different kinds of worlds, with the round doorknob presuming a world in which everyone’s bodies are the same, and in which hands with opposable thumbs and sufficient grip strength are always available…

(Alan Galey & Stan Rucker, “How A Prototype Argues”)
DTMS: IIIF & the Scholar’s Desktop

Scholars with less institutional support and/or technical expertise

User access to, and control over, data
DIY Images
Ability to annotate, share “raw data” and process
Ability to collaborate

Technology-in-practice

IIIF + Omeka
Pat
- Lives in England
- Consults manuscripts in a major archive in person
- Consults the same manuscripts via IIIF-compliant, archive-grade digital surrogates

Nat
- Collection of hundreds of DIY images, taken over the years in Turkish and Venetian archives
- Original manuscripts not digitized

Robin
- Manuscript images from a variety of repositories in Dropbox: some downloaded, others, DIY or from microfilm facsimile, digitized
- Organized in folders, with metadata in spreadsheet

Julian
- Teach historical archives in the digital age
- Get their students to experiment with IIIF as a way to think through digital collections, data curation, and data standards
IIIF - The underpinnings

Technical Stack

IIIF Image Client
IIIF Image Server
Content Repo.
Content Repo.
Content Repo.

Specifications

Image API
Pres. API
Auth. API
Search API

Image Delivery
Structure/Layout
Access Control
Search within IIIF content
Scholarly needs: low friction

Elco van Staveren, Europeana
Cloud, 2014
https://flic.kr/p/o1fHAM
IIIF Manifest

```json
"@context": "http://iiif.io/api/presentation/2/context.json",
"@id": "https://wellcomelibrary.org/iiif/b18035723/manifest",
"@type": "sc:Manifest",
"label": "Wunder der Vererbung",
"metadata": [
  {
    "label": "Title",
    "value": "Wunder der Vererbung"
  },
  {
    "label": "Author(s)",
    "value": "Bolle, Fritz"
  }
],
"sequences": [
  {
    "@id": "https://wellcomelibrary.org/iiif/b18035723/sequence/s0",
    "@type": "sc:Sequence",
    "label": "Sequence s0",
    "rendering": [
      {
        "@id": "https://dlcs.io/pdf/wellcome/pdf-item/b18035723/0",
        "format": "application/pdf",
        "label": "Download as PDF"
      },
      {
        "@id": "https://wellcomelibrary.org/service/fulltext/b18035723/0?raw=true",
        "format": "text/plain",
        "label": "Download raw text"
      }
    ]
  }
],
"otherContent": [
  {
    "@id": "https://wellcomelibrary.org/iiif/b18035723/contentAsText/1",
    "@type": "sc:AnnotationList",
    "label": "Text of this page"
  }
]
```
Use Cases

Wall monument of John Stow, St Andrew Undershaft, St Mary Axe, EC2
http://www.geograph.org.uk/photo/1491412

13v and 14r, MS 152, Bodleian Library.
Plugging IIIF into Omeka

**Collection**
- id
- public
- featured
- added
- modified
- owner_id
- int(10)
- tinyint(4)
- tinyint(4)
- timestamp
- timestamp
- • Characterizes both IIIF collections and manifests

**Item**
- id
- item_type_id
- collection_id
- featured
- public
- modified
- added
- owner_id
- int(10)
- int(10)
- tinyint(4)
- tinyint(4)
- tinyint(4)
- timestamp
- timestamp
- • Characterizes both IIIF images and annotations

**File**
- id
- item_id
- order
- size
- has_derivative_image
- authentication
- mime_type
- type_os
- filename
- original_filename
- modified
- added
- stored
- metadata
- int(10)
- int(10)
- int(10)
- int(10)
- tinyint(1)
- char(32)
- varchar(255)
- varchar(255)
- text
- text
- timestamp
- timestamp
- tinyint(1)
- text
- • Attached files

**ElementType**
- id
- record_id
- record_type
- element_id
- html
- text
- int(10)
- int(10)
- varchar(50)
- tinyint(4)
- mediumtext
- • Contains the body of metadata details

**Element**
- id
- element_set_id
- order
- name
- description
- comment
- int(10)
- int(10)
- int(10)
- varchar(255)
- text
- • Labels for metadata

**ElementSet**
- id
- record_type
- name
- description
- int(10)
- varchar(50)
- varchar(255)
- text
- • Groups labels for metadata under a certain category (e.g. Dublin Core) and restricts its use by record type (null = any type)

**ItemType**
- id
- name
- description
- int(10)
- varchar(255)
- text
- • Distinguishes an annotation from a regular item
IIIF and Omeka
Ingesting a Manifest

IIIF Import

Import Items

Type
- Collection
- Manifest
- Canvas

Source
- From File
- From URL
- From Paste

URL

http://dams.illc.org.uk/iiif/2.0/4628556/manifest.json

Set as Public?

Set as Featured?
# Ingesting a Manifest

## IIIF Import

### Status Panel

<table>
<thead>
<tr>
<th>Source</th>
<th>Imported Items</th>
<th>Skipped Items</th>
<th>Failed Items</th>
<th>Date</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="http://www.e-codices.unifr.ch/metadata/iiif/fmb-cb-0048/manifest.json">http://www.e-codices.unifr.ch/metadata/iiif/fmb-cb-0048/manifest.json</a></td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>2016-12-09 18:51:26</td>
<td>In Progress</td>
</tr>
<tr>
<td><a href="http://www.e-codices.unifr.ch/metadata/iiif/fmb-cb-0048/manifest.json">http://www.e-codices.unifr.ch/metadata/iiif/fmb-cb-0048/manifest.json</a></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2016-12-09 18:50:33</td>
<td>Failed</td>
</tr>
<tr>
<td><a href="http://iiif.bodleian.ox.ac.uk/iiif/manifest/34f8370b-15d7-435e-8a83-ad6803dd05cd.json">http://iiif.bodleian.ox.ac.uk/iiif/manifest/34f8370b-15d7-435e-8a83-ad6803dd05cd.json</a></td>
<td>680</td>
<td>0</td>
<td>4</td>
<td>2016-12-08 11:01:51</td>
<td>Completed</td>
</tr>
<tr>
<td><a href="http://dams.llgc.org.uk/iiif/2.0/4628556/manifest.json">http://dams.llgc.org.uk/iiif/2.0/4628556/manifest.json</a></td>
<td>518</td>
<td>0</td>
<td>0</td>
<td>2016-12-06 12:22:24</td>
<td>Completed</td>
</tr>
<tr>
<td>Upload:/tmp/huan-320567</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2016-12-01 19:14:25</td>
<td>Completed</td>
</tr>
<tr>
<td><a href="http://welcomelibrary.org/iiif/b18035723/manifest">http://welcomelibrary.org/iiif/b18035723/manifest</a></td>
<td>1254</td>
<td>0</td>
<td>0</td>
<td>2016-12-01 19:13:02</td>
<td>Completed</td>
</tr>
</tbody>
</table>

---

**UNIVERSITY OF TORONTO**
Mirador: Viewing manuscripts
Working with manuscripts

Viewing annotations

Editing annotations
Working with Manuscripts

Search and edit tags (items)

Browse manuscript collections
Exhibiting Manuscripts

First Page

MS 152 represents an otherwise lost textual tradition; there is no earlier witness to this method of putting a text together. It is of particular interest to us because of its physical assembly. Here we see the first page of the Canterbury Tales, as marked by the large ornate first letter.
Neatline Integration
Visualizing Collations: Viscoll

The clans of the Scottish Highlands

- Leaf: 3
- Order: 3
- Type: Original
- Material: Parchment
- Conjoin with: 6
- Attachment method: Sewn
- Date: 1940/02/06
- Metadata: None
## Walters Ms. W.175 | Masters of the Dark Eyes Missal

<table>
<thead>
<tr>
<th>Leaf</th>
<th>Type</th>
<th>Side</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leaf 1</td>
<td>Original</td>
<td><img src="checkmark.png" alt="Checkbox" /></td>
</tr>
<tr>
<td>Leaf 2</td>
<td>None</td>
<td><img src="unchecked.png" alt="Checkbox" /></td>
</tr>
<tr>
<td>Leaf 3</td>
<td>Original</td>
<td><img src="checkmark.png" alt="Checkbox" /></td>
</tr>
<tr>
<td>Leaf 4</td>
<td>Original</td>
<td><img src="checkmark.png" alt="Checkbox" /></td>
</tr>
<tr>
<td>Leaf 5</td>
<td>None</td>
<td><img src="unchecked.png" alt="Checkbox" /></td>
</tr>
<tr>
<td>Leaf 6</td>
<td>None</td>
<td><img src="unchecked.png" alt="Checkbox" /></td>
</tr>
<tr>
<td>Leaf 7</td>
<td>None</td>
<td><img src="unchecked.png" alt="Checkbox" /></td>
</tr>
<tr>
<td>Leaf 8</td>
<td>None</td>
<td><img src="unchecked.png" alt="Checkbox" /></td>
</tr>
<tr>
<td>Leaf 9</td>
<td>None</td>
<td><img src="unchecked.png" alt="Checkbox" /></td>
</tr>
</tbody>
</table>

Select leaves to batch edit.

### Leaf
- ![Checkbox](unchecked.png) Type
- ![Checkbox](unchecked.png) Material
- ![Checkbox](unchecked.png) Attachment Method
- ![Checkbox](unchecked.png) Attached To

### ACTIONS
Collation

Collation
IIIF to go

PWhite23, Phone Bloks, Nov 1 2013
https://prestonwhiteuo.wordpress.com/2013/11/01/phone-bloks-blog-11/
In Its depths I saw contained,
bound by love in one volume,
the scattered leaves of all the universe.

Dante Alighieri, *Paradiso*, Canto XXXIII
We are very grateful to:

The IIIF Foundation & community

The Mirador team & community

The Omeka team & community

The VisColl team