Intro to IIIF and Digital Collections

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What is IIIF?

IIIF is:

- The International Image Interoperability Framework
- An emerging new standard for displaying images online
- A great way to make digital collections more accessible and useful.
- Supported by a growing community of researchers and librarians
- A series of API specifications related to image hosting and sharing
Wait, back up...
What’s an API?

API = Application Programming Interface

- Basically, an API is a tool for letting computers access data from a website
- Example - an app that syncs with a website.
IIIF has four APIs

Image API - Provides images from the IIIF-compatible digital collection

Presentation API - Structural metadata to go with a set of images

Search API - Allows searching of metadata within Presentation API

Authentication API - Limit access or degrade quality for certain users

(A fifth, Change Discovery API, is in development)

CONTENTdm = currently compatible with the first two only
So how does it work???
Base URL for IIIF Image API

{scheme}://{server}{/prefix}/{identifier}/{region}/{size}/{rotation}/{quality}.{format}

https://digitalcollections.slu.edu/digital/iiif/photos/3283/full/full/0/default.jpg

- Scheme
- Server
- Prefix
- Identifier
- Region
- Size
- Rotation
- Quality
- Format
Scheme/Server/Prefix

- **Scheme** = https:// or http://

- **Server** = URL of the file = digitalcollections.slu.edu

- **Prefix** = activates the IIIF API = digital/iiif/
**Identifier**

- Names the file you want from the API
- In CONTENTdm, **Identifier** = collection alias/file ID number
Region

- Can show an entire image or automatically cut it down to a specific part
- Options:
  - Full = show entire area
  - Square = crop center of image down to a square
  - coordinates = specify which part of the image you want
    - 4 numbers, 3 commas, 0 spaces
    - First = # of pixels from left margin
    - Second = # of pixels from top
    - Third = width of selection
    - Fourth = height of selection
Example of Region:
https://digitalcollections.slu.edu/digital/iiif/photos/3283/full/pct:75/0/default.jpg
Example of Region:
https://digitalcollections.slu.edu/digital/iiif/photos/3283/1800,0,1000,900/full/0/default.jpg
Size

Changes the size of the image or selection

Options:

- full = displays image at original size
- pct:n = percentage of original size
  - In CONTENTdm, seems to range from pct:10 to pct:200
Rotation

- Can turn and/or flip the image
- Options:
  - N (number between 0-360) = rotates image clockwise by that many degrees
  - !n = supposed to flip to mirror image, then rotates clockwise by that many degrees
Quality

Can change the range of color in the image

Options:

● default - leaves quality as is.
● color - makes image full color
● gray - makes image grayscale
● bitonal - purely black and white only
Format

Can choose the file format of the image returned by the API

Options include:

- JPG
- TIF
- PNG
- GIF
- JP2
- PDF

NOTE: in CONTENTDM, only JPG seems to be supported
For More Information:

IIIF Image API Specifications - https://iiif.io/api/image/2.1/

Learn IIIF (including image playground) - https://www.learniiif.org/

IIIF API - OCLC Support -

“Limitless Access” (CONTENTdm webinar) - https://vimeo.com/299892297/4e12a2c150
Slides -
https://www.oclc.org/content/dam/oclc/events/2018/Webinars/IncorporatingIIIFcontentinyourwebsite103018.pdf

Mirador Viewer - http://projectmirador.org/

OpenSeadragon - https://openseadragon.github.io/