Images are Fundamental Information Carriers
Yet, we hear ...
I need a newer, faster image server
(and I can’t spend much time or money on it)
My users want deep zoom (on mobile)
They want to compare objects
They want to compare objects across collections.
They want to cite my images...
... annotate my images ...
The International Image Interoperability Framework (IIIF) has huge potential to help us achieve this goal. If you're not familiar with it, IIIF is a standard for serving and consuming high quality images online, with the ability to instruct a server about the desired resolution, or image manipulations such as rotation and zooming. It also makes it more straightforward to publish complex aggregations of images, for instance bringing together a medieval manuscript text and an illumination that was stripped away from it.
... reveal features of my images ...
... reveal features of my images...
... reveal features of my images ...
... and I don’t want to lose control
Oh, and ...
I don’t want to invent any of it
A Community that develops APIs, implements them in Software, and exposes interoperable Content
IIIF, Linked Data, Vocab

@azaroth42
rsanderson
@getty.edu

https://groups.google.com/forum/#!forum/iiif-discuss
Some of the IIIF Community

National Libraries
- Austria
- British Library
- France
- Denmark
- Egypt
- Israel
- Japan
- New Zealand
- Norway
- Poland
- Qatar
- Scotland
- Serbia
- Vatican
- Wales

Research Institutions
- C2RMF (France)
- Cornell University
- Johns Hopkins Univ.
- Harvard University
- Oxford University
- Princeton University
- Stanford University
- Kyoto University
- University College Dublin
- Wellcome Library
- Yale University

Technology Firms
- CogApp * Digitari
- Luna * Klokan

Museums
- British Museum
- J Paul Getty Trust
- Natl Gallery of Art (US)
- YCBA
- Indianapolis Art Museum
- Chicago Art Institute
- Frick

Aggregators
- Artstor
- DPLA
- Europeana
- Internet Archive

Projects
- Biblissima * e-codices
- TPEN * TextGrid
IIIF Community: Consortium

- Artstor
- Bayerische Staatsbibliothek
- La Bibliothèque nationale de France
- British Library
- Brown University
- Cambridge University
- Cornell University
- The J. Paul Getty Trust
- Göttingen State and University Library
- Harvard University
- Indiana University
- Johns Hopkins University
- Leiden University
- MIT Libraries
- Nasjonalbiblioteket (National Library of Norway)
- National Library of Israel
- National Library of Poland

- National Library of Scotland
- New York University Libraries
- North Carolina State University
- Ohio State University
- Oxford University (Bodleian Library)
- Princeton University Library
- Stanford University
- University of Edinburgh
- University of Hong Kong
- University of Michigan
- University of Notre Dame
- University of Oklahoma
- University of Pennsylvania
- University of Toronto
- Vatican Library
- Wellcome Trust
- Yale University / Yale Center for British Art
Four APIs: Agreements on Interaction

- Image
- Presentation
- Authentication
- Search
Image API

/ img-1234 / 125,15,120,140 (identifier) (region) / pct:75 / ! 345 / gray.jpg (size) (mirror) (rotation) (quality, format)

http://iiif.io/api/image/2.1/
But: Need More than One Image per Object
How Do I Know...

... which images to use?
... in which order?
... what they depict?
... how they can be reused?
... which other resources to display?
... which other objects are related?
Presentation API

Provide only the information necessary for an application to present the object to the user
Presentation API

Structure

Properties
- Descriptive
- Rights
- Technical
- Linking

http://iiif.io/api/presentation/2.1/
Presentation API: Canvas
Presentation API: Canvas

Think:
Powerpoint Slide
Presentation API: Content
Presentation API: Annotations

Commentary

Transcription

Commentary

Transcription

Transcription

Transcription

Commentary
The Abduction of Europa (1632), Rembrandt Harmensz. van Rijn (Dutch, 1606 – 1669)
A master of visual effects, Rembrandt took pleasure in describing the varied textures of sumptuous costumes and glittering gold highlights on the carriage and dresses.

**Artist / Maker:**
Rembrandt Harmensz. van Rijn (Dutch, 1606 – 1669)

**Culture & Date:**
Dutch, 1632

**Medium:**
Oil on single oak panel

**Dimensions:**
64.6 x 78.7 cm (25 7/16 x 31 in.)

**Object Number:**
95.PB.7

**Rights:**
Provided by The J. Paul Getty Museum
Internationalization via Getty Vocabs

Label: Artist

藝術家
Konstnär
kunstenaars

Value: Rembrandt van Rijn

رامبرانت
 رمضاندر
рембрандт ван рйн
Discovery via Getty Vocabs

Internationalized Search

Relationships between resources derived from
- shared concepts
- shared agents and places
- semantic relationships between resources
Linked Data as an API: JSON-LD

JSON is the most comfortable representation for software developers.

```json
{
    "@context": "http://iiif.io/api/presentation/2/context.json",
    "id": "http://data.getty.edu/iiif/882/manifest",
    "type": "Manifest",
    "label": "The Abduction of Europa",
    "description": "In the Metamorphoses, the ancient Roman...",
    "metadata": [{"label": "Artist", "value": "Rembrandt..."}],
    ...
}
```
IIIF, Linked Data, Vocab

@azaroth42
rsanderson
@getty.edu

GETTY CONSERVATION INSTITUTE + GETTY FOUNDATION + GETTY RESEARCH INSTITUTE + J. PAUL GETTY MUSEUM

Getty Museum via LOD+IIIF

Coll’ns  Mirador  UV  Leaflet  Search  Glimpse  Mobile

Presentation API  Image API (0)  CIDOC-CRM

Linked Data and Content APIs

DOR  Derivative Creation  SAN Storage

TMS  Media Manager
Museum Linked Data Ecosystem

- Mobile
- Mirador
- UV
- ...

- IIIF
- LOD
- IIIF
- LOD
- IIIF
- LOD
- IIIF
- LOD

- Getty
- YCBA
- AIC
- NPG

@azaroth42
rsanderson
@getty.edu
Thank You!

Rob Sanderson / rsanderson@getty.edu

http://iiif.io/
http://iiif.io/api/image/2.1/
http://iiif.io/api/presentation/2.1/
http://projectmirador.org/
http://universalviewer.io/examples/