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IIIF, Linked Data, and Vocabularies

International Image Interoperability Framework

PNC 2016, ITWG 2016

http://iiif.io/ #iiif

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Images are Fundamental Information Carriers

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Yet, we hear …

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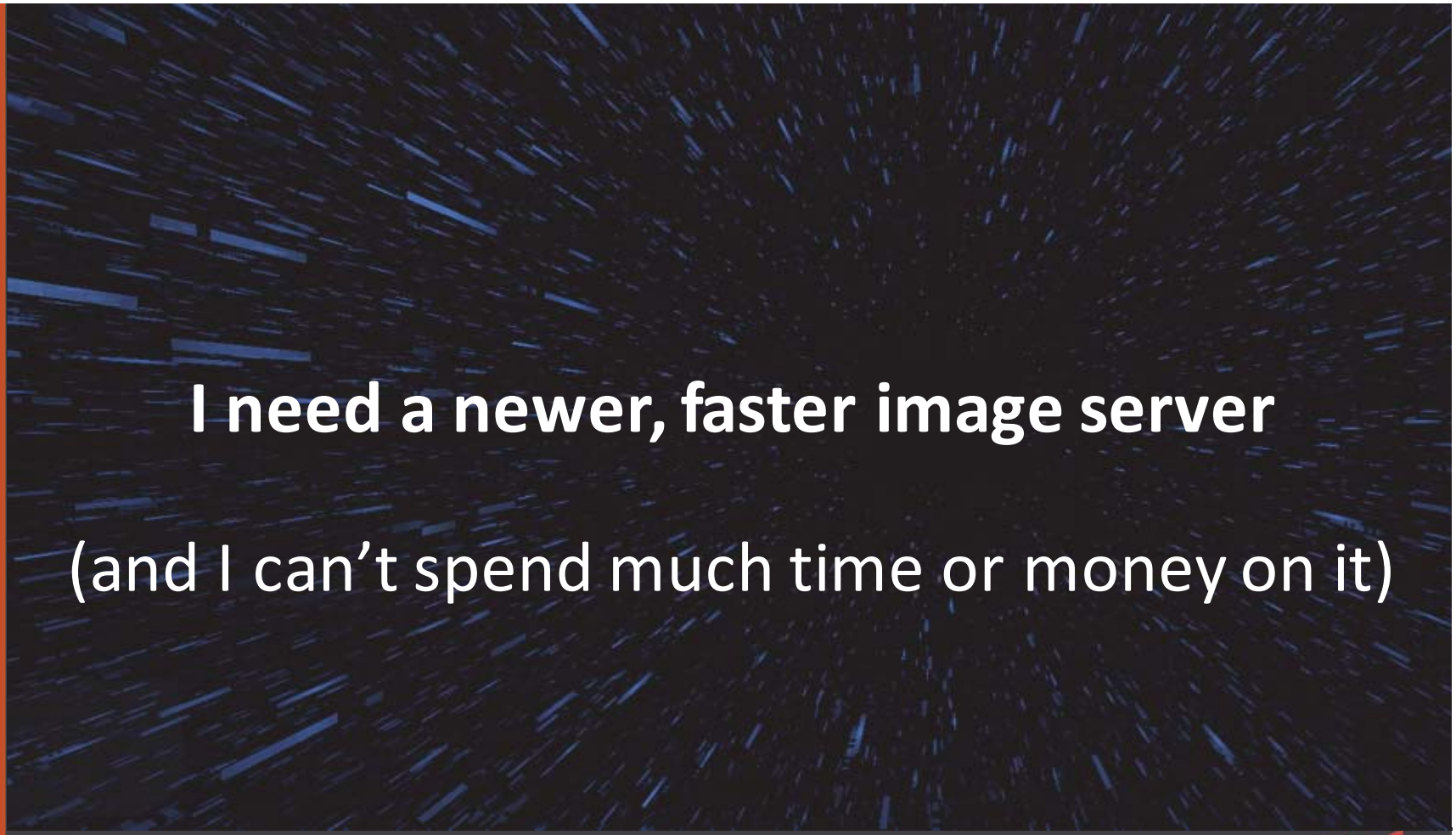

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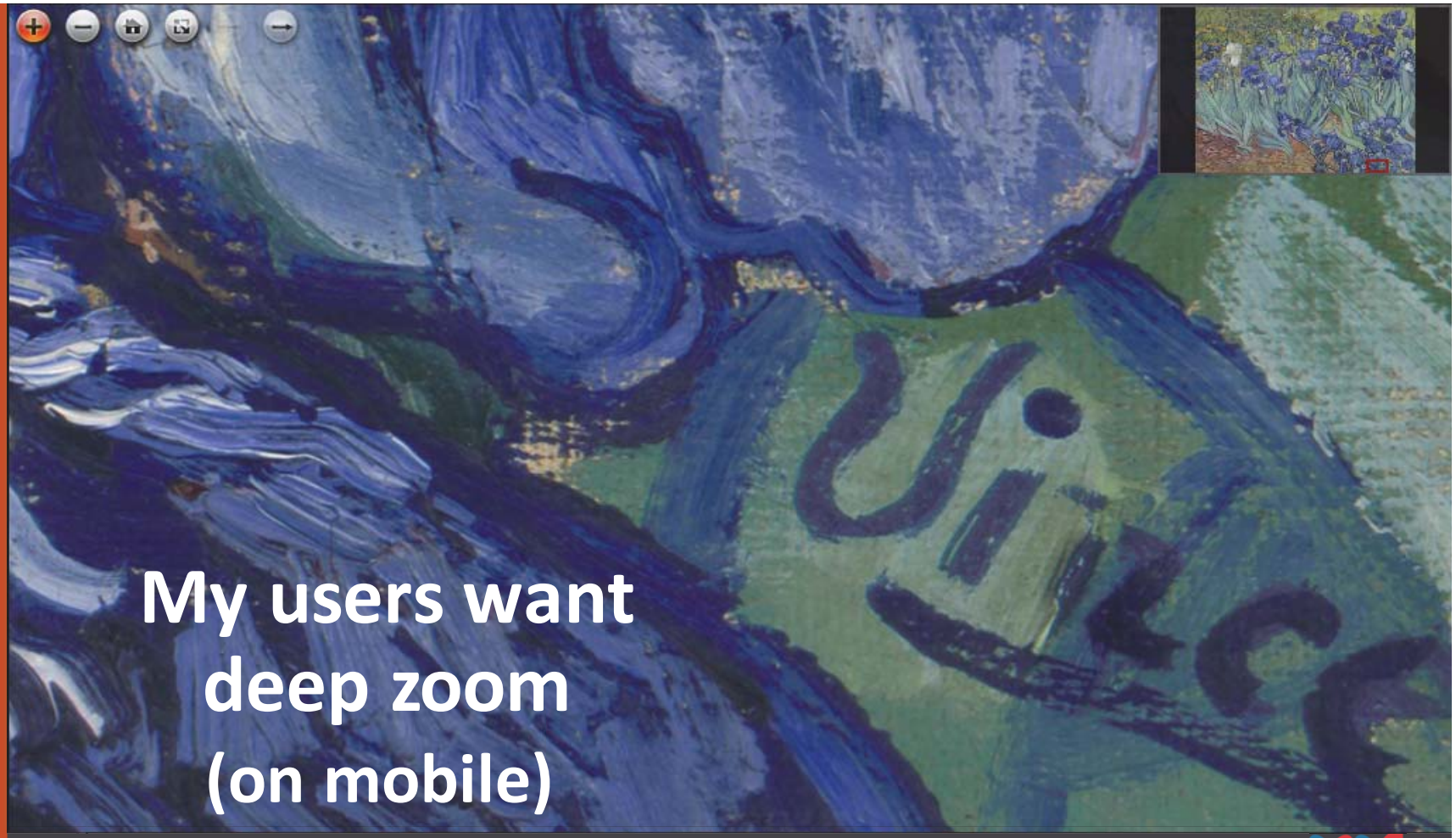

My users want deep zoom (on mobile)

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They want to compare objects

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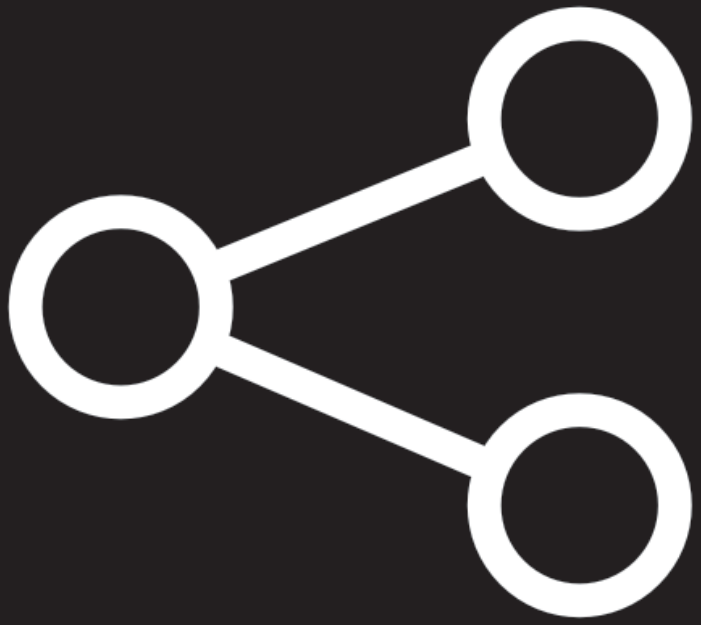

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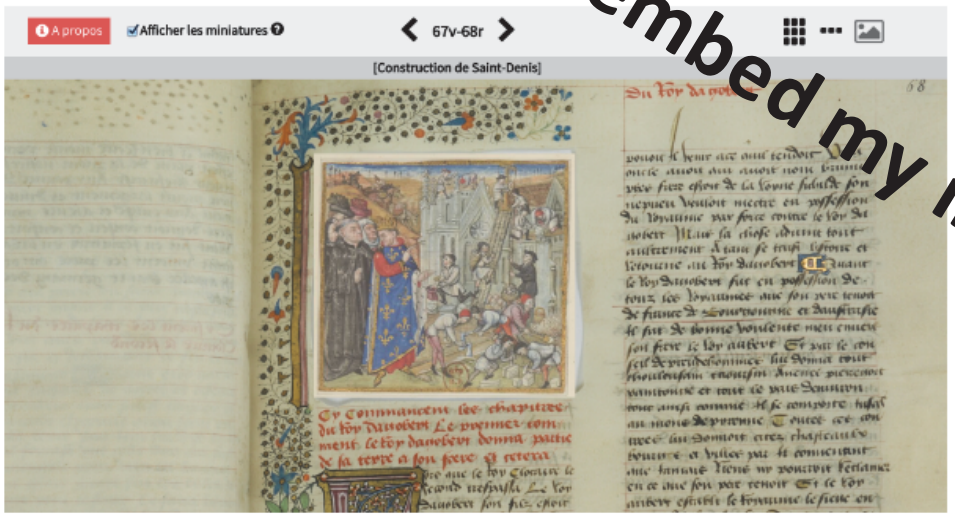
Our Network Get involved Share your data Use our data

OUR SITES

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.



... embed my images ...

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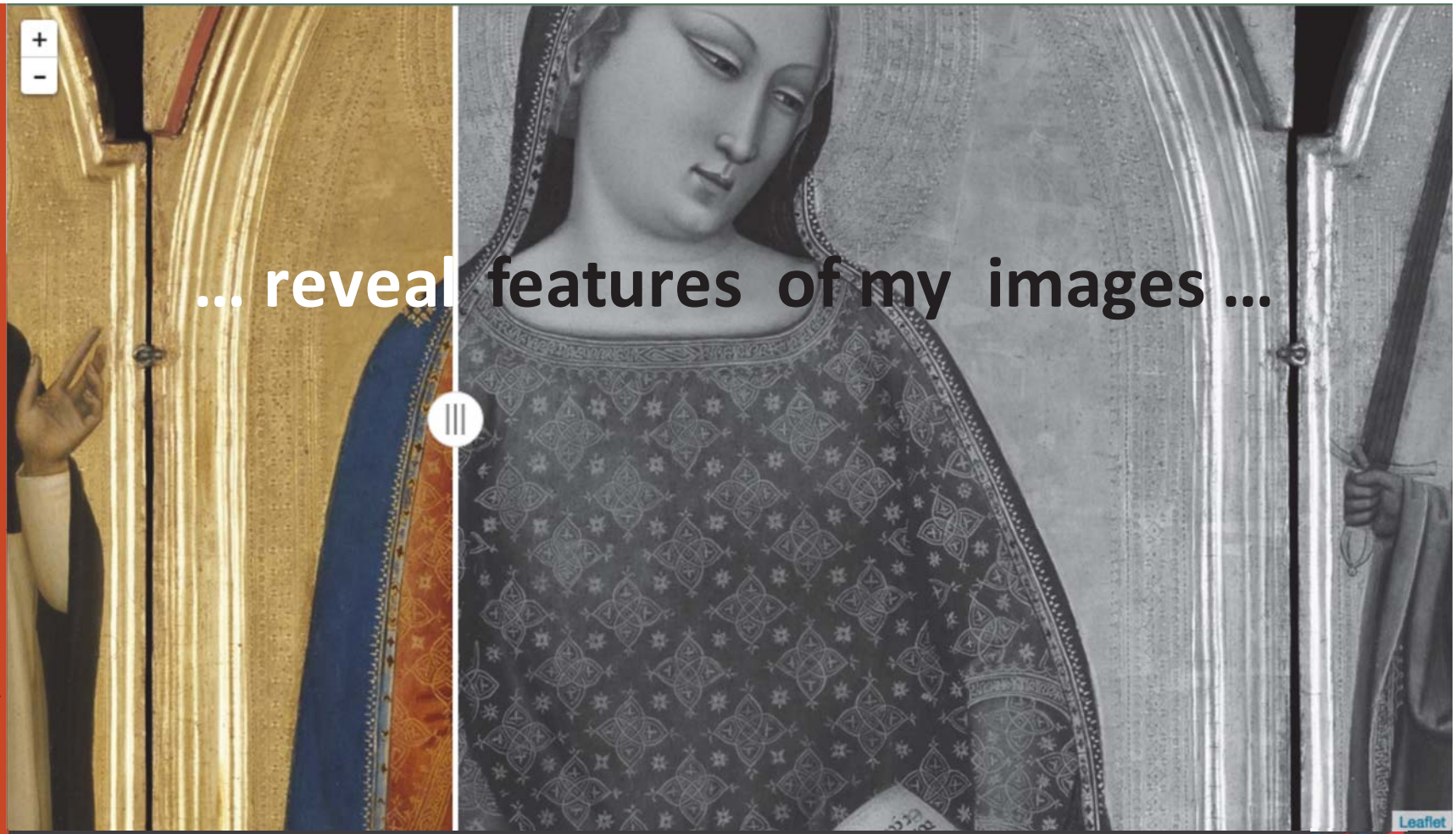

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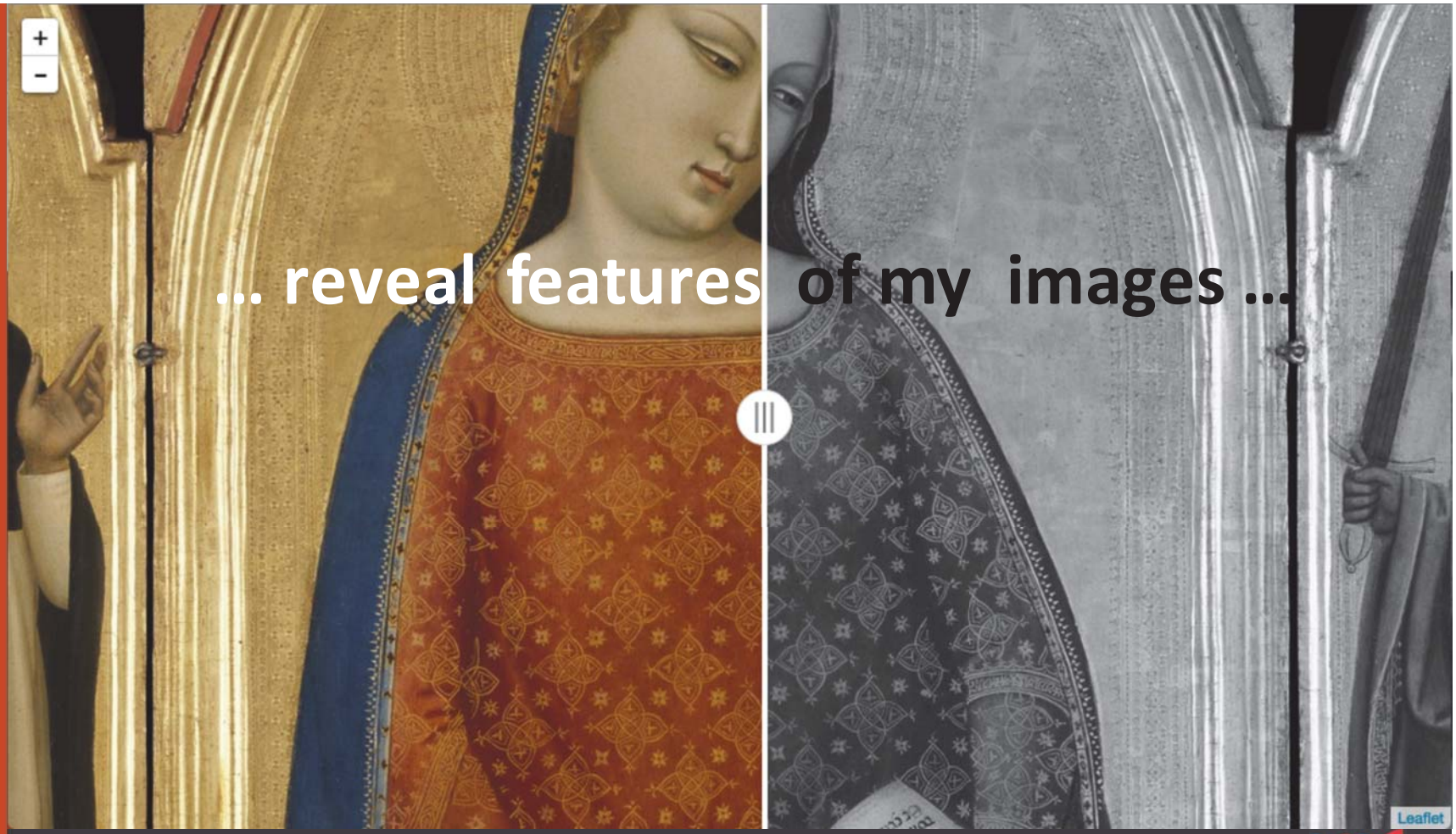

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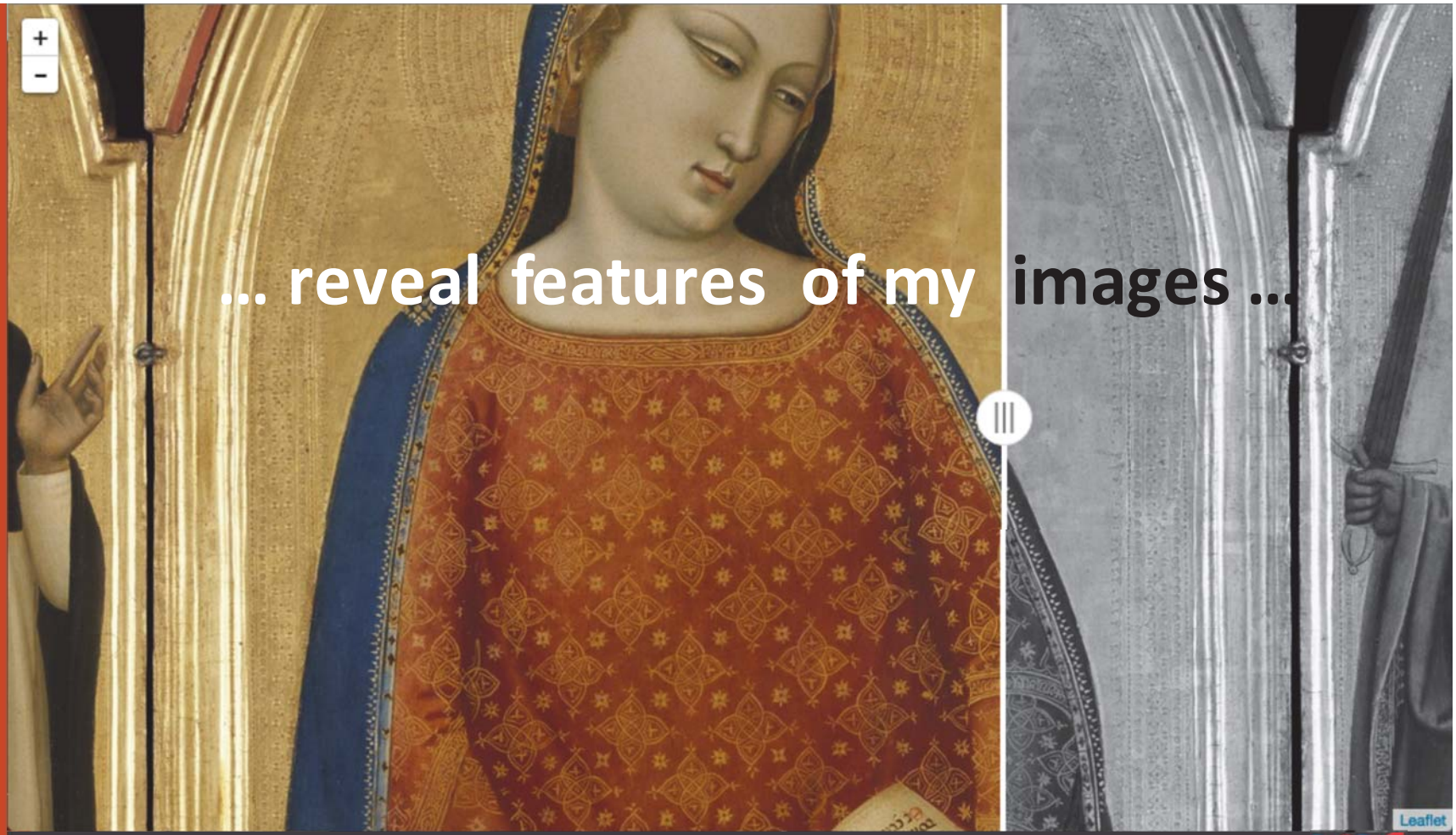

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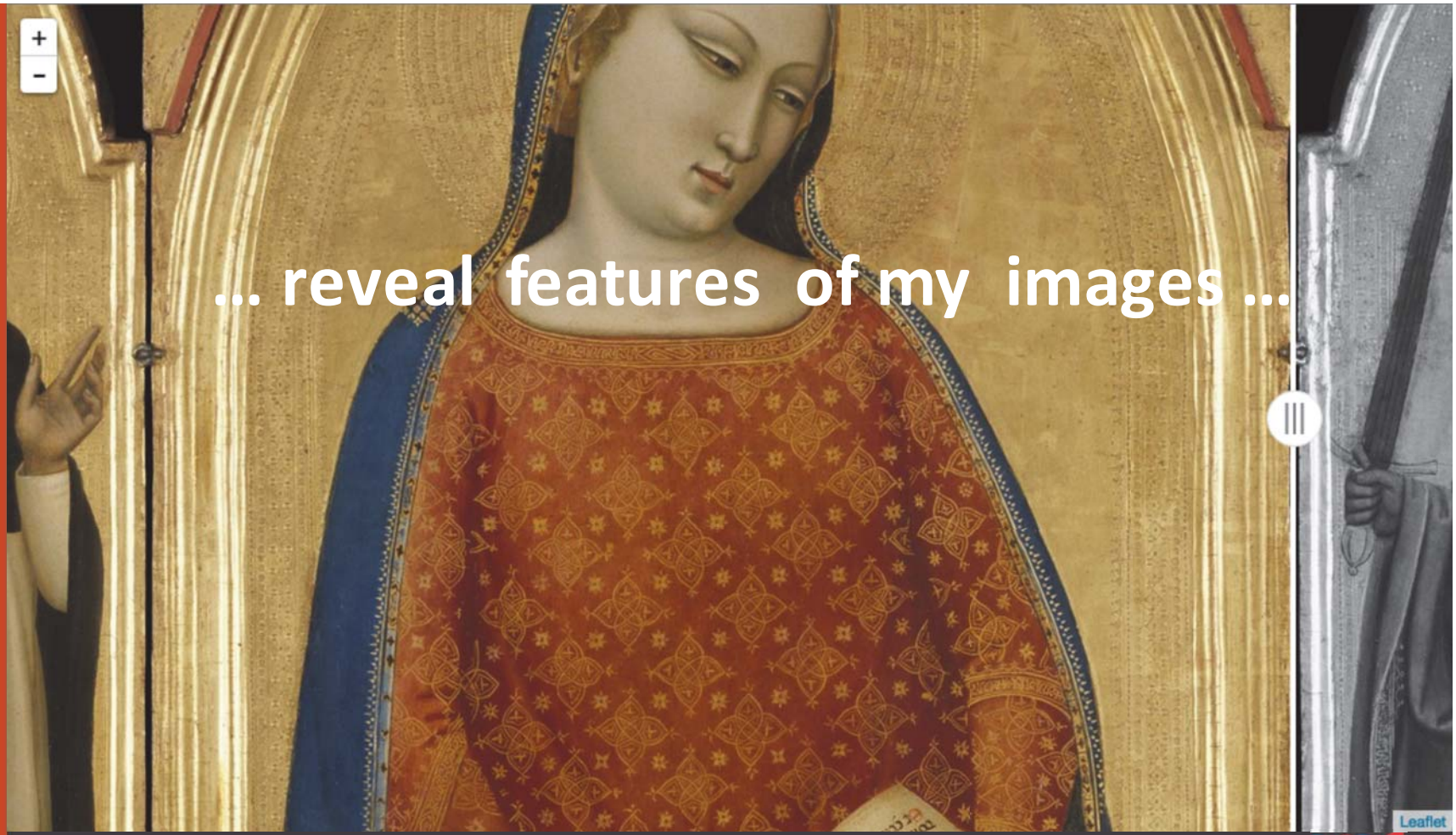

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… and I don't want to lose control

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Oh, and …

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I don’t want to invent any of it

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A **Community**

that develops **APIs,**

implements them in **Software,**

and exposes interoperable **Content**

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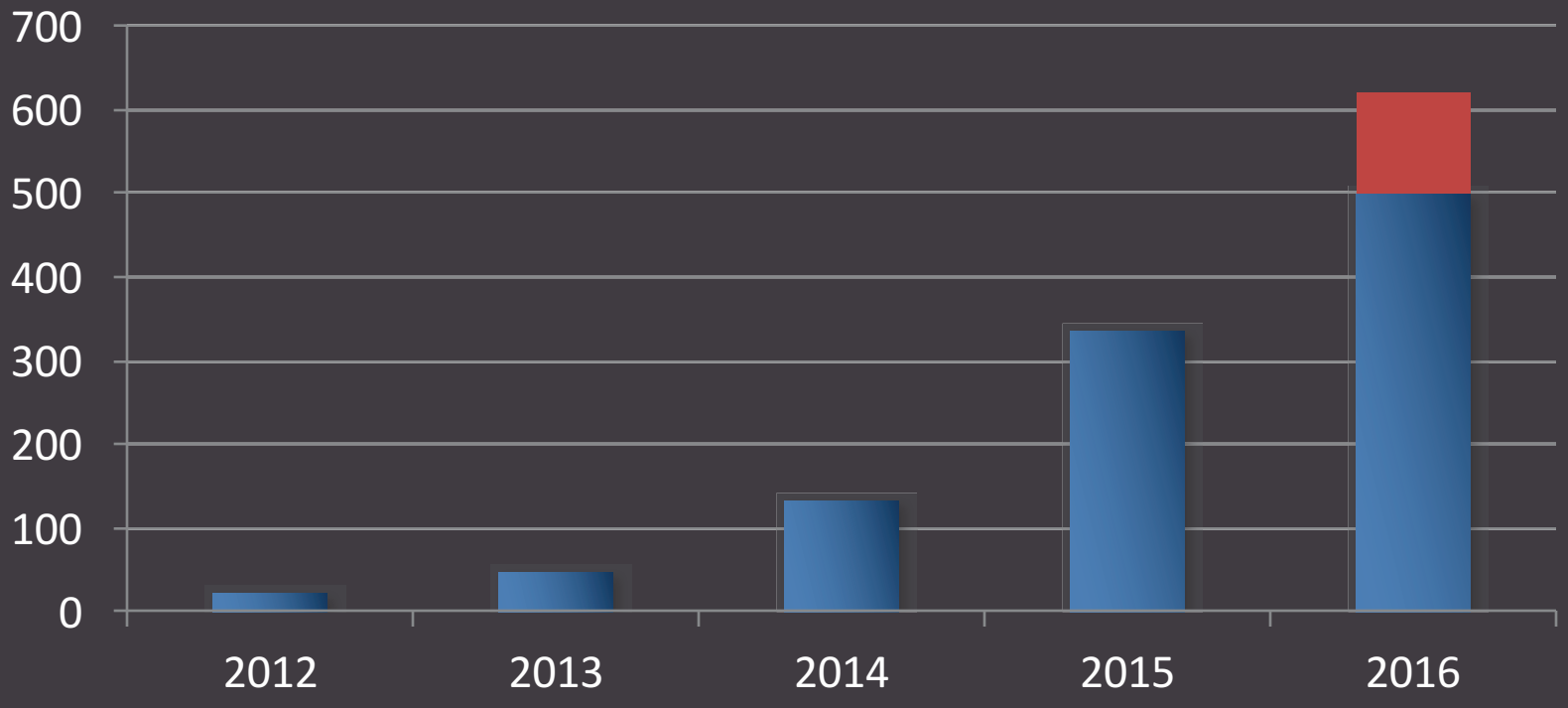
IIIF Community



https://groups.google.com/forum/#!forum/iiif-discuss

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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 * Digirati
- 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

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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

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Four APIs: Agreements on Interaction

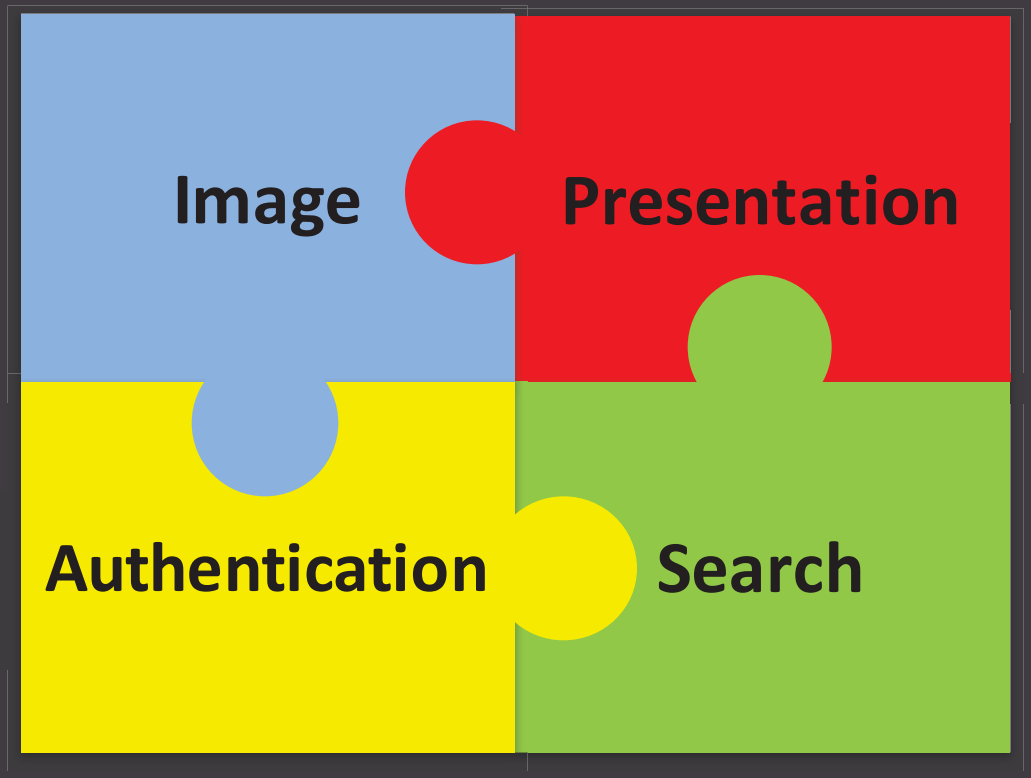

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Image API

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

http://iiif.io/api/image/2.1/

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But: Need More than One Image per Object

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How Do I Know…

… which images to use?

… in which order?

… what they depict?

… how they can be reused?

… who should be attributed?

… which other resources to display?

… which other objects are related?

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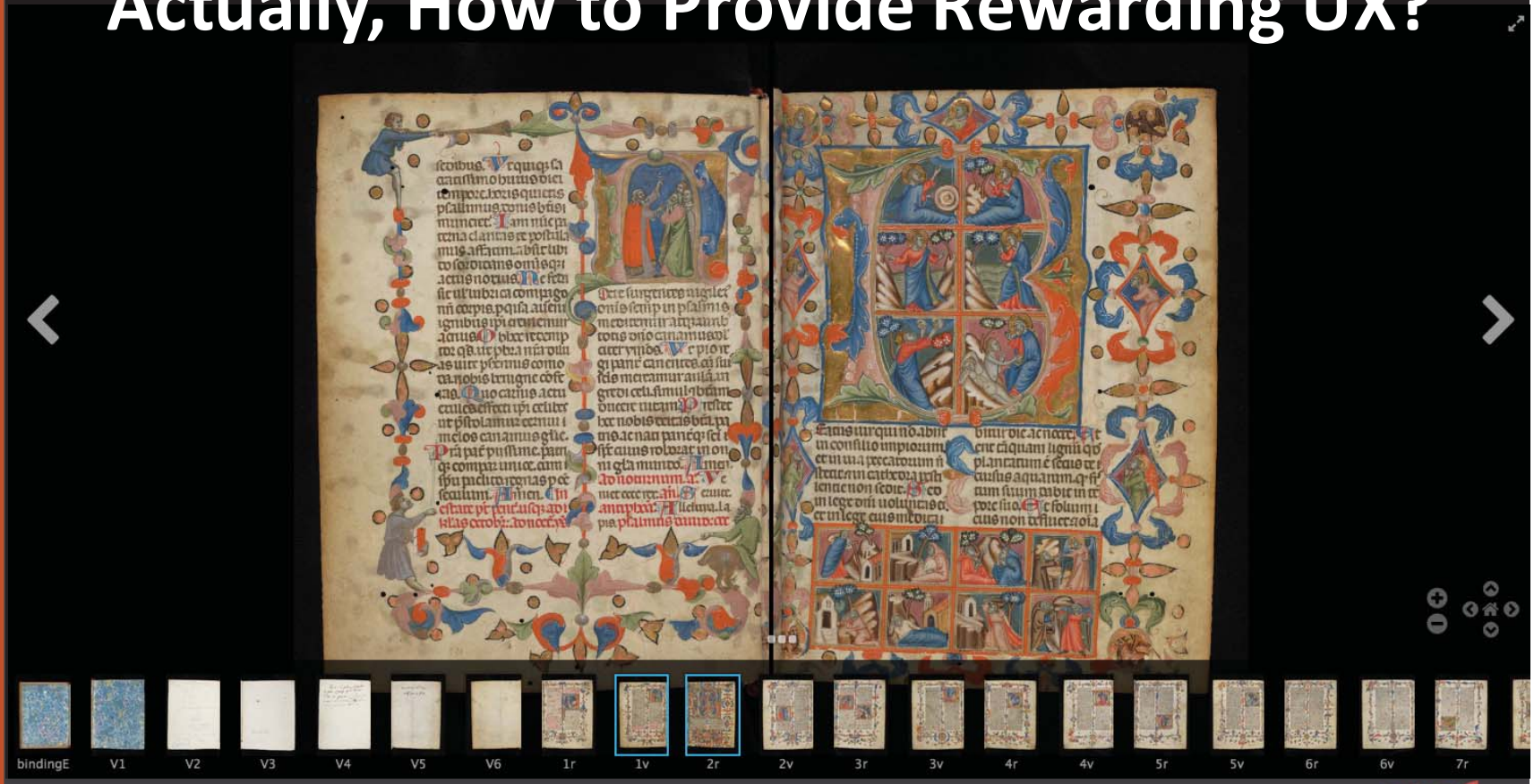
Actually, How to Provide Rewarding UX?



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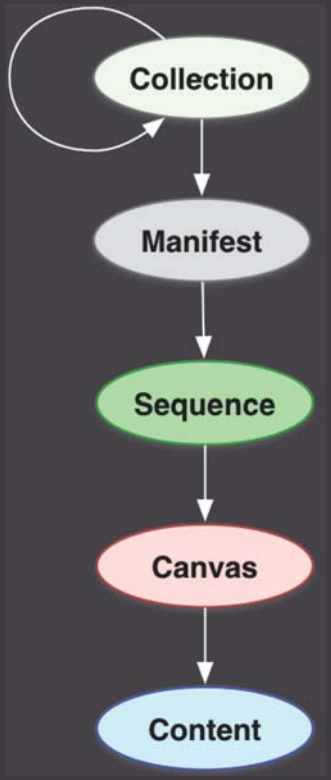
Presentation API



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

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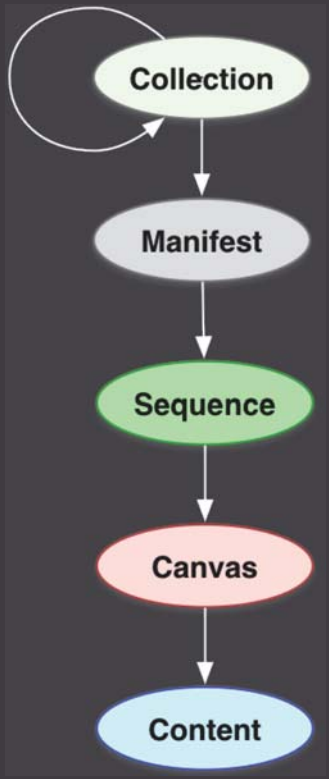

Presentation API

Structure

Properties

- Descriptive
- Rights
- Technical
- Linking

http://iiif.io/api/presentation/2.1/

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Presentation API: Canvas

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Presentation API: Canvas

Think:
Powerpoint Slide

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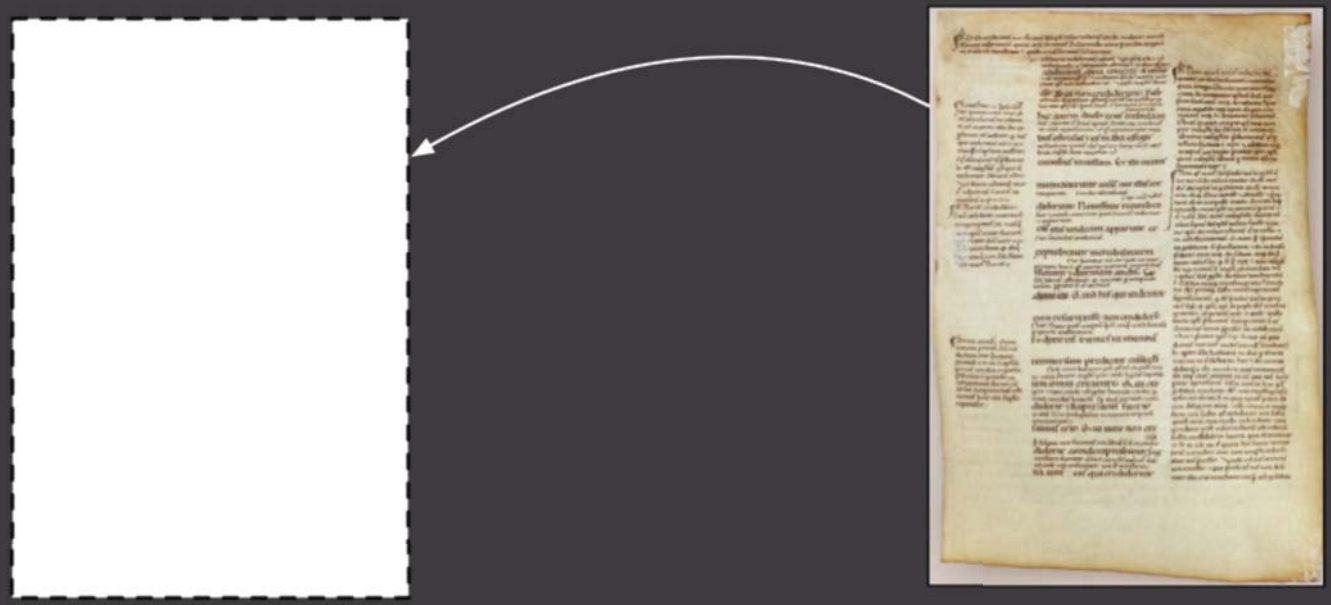
Presentation API: Content



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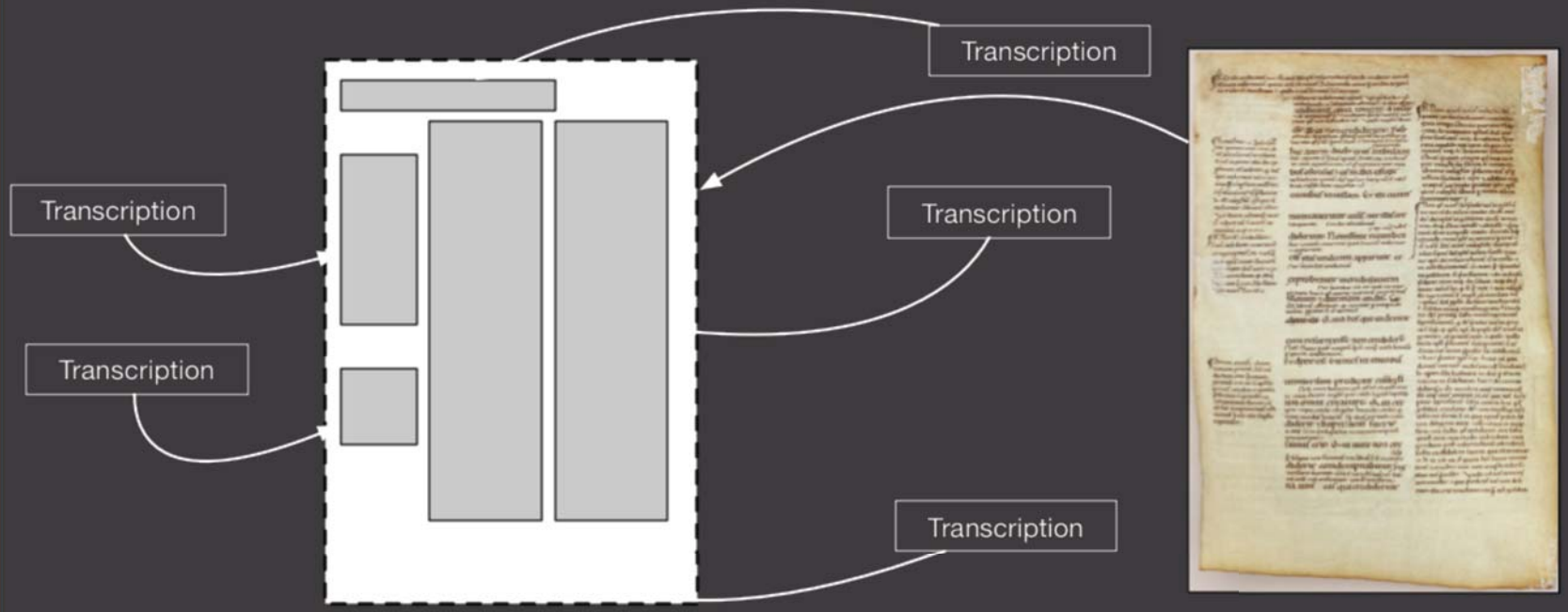
Presentation API: Content



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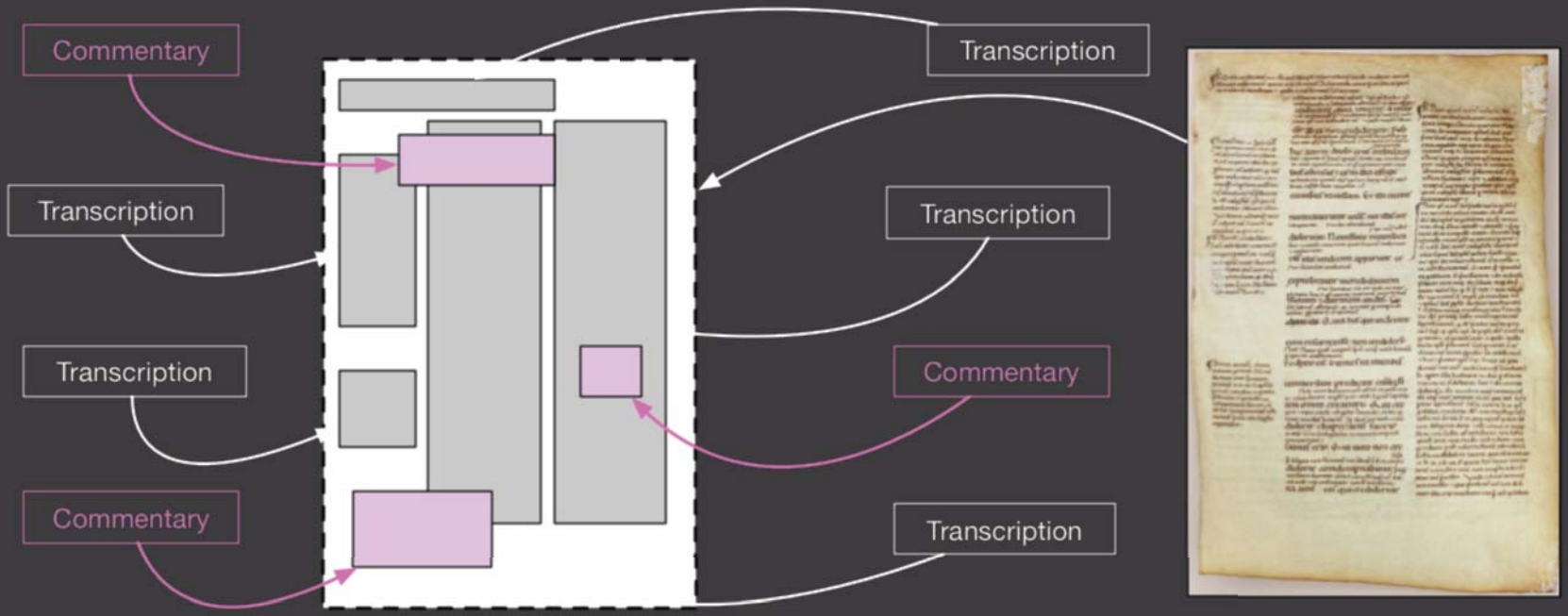
Presentation API: Annotations



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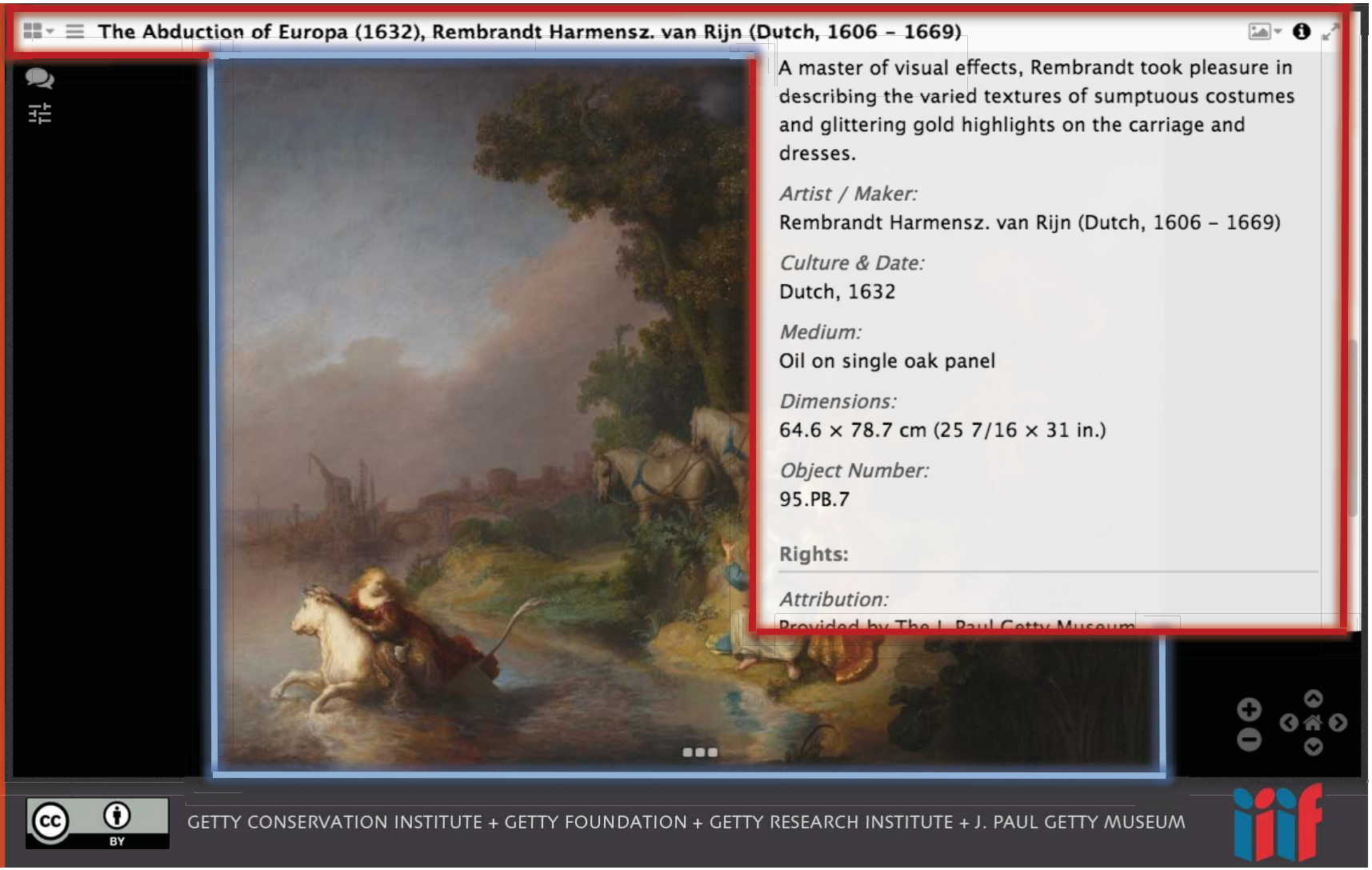

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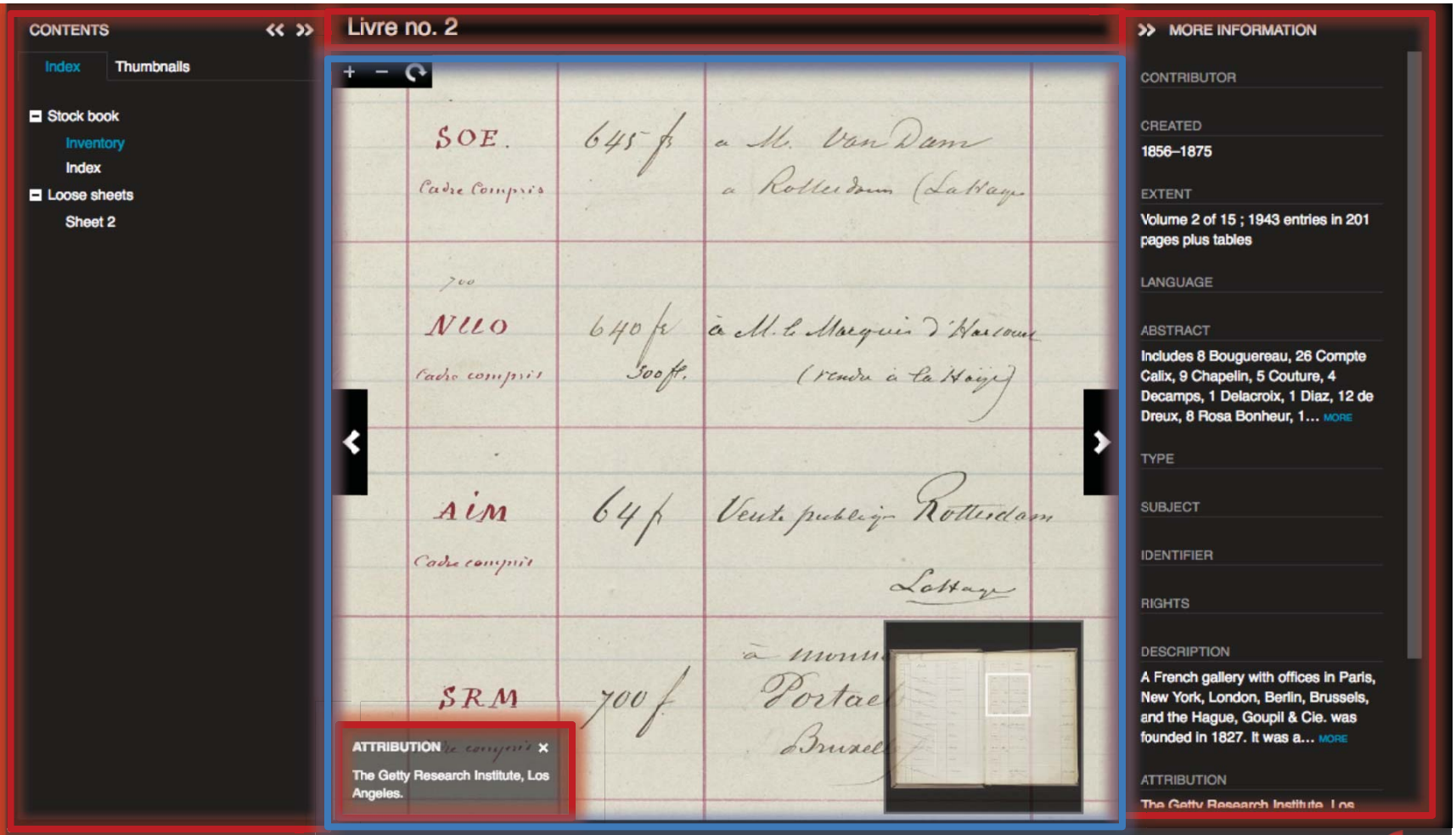

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Internationalization via Getty Vocabs

Label: Artist
藝術家
Konstnär
kunstenaars

Value: Rembrandt van Rijn
رامبرانت
רמברנדט הרמנסזון ואן־ריין

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Discovery via Getty Vocabs

Internationalized Search

Relationships between resources derived from
- shared concepts
- shared agents and places
- semantic relationships between resources

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Linked Data as an API: JSON-LD

JSON is the most comfortable representation for software developers.

```
{
  "@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..."}],
   ...
}
```

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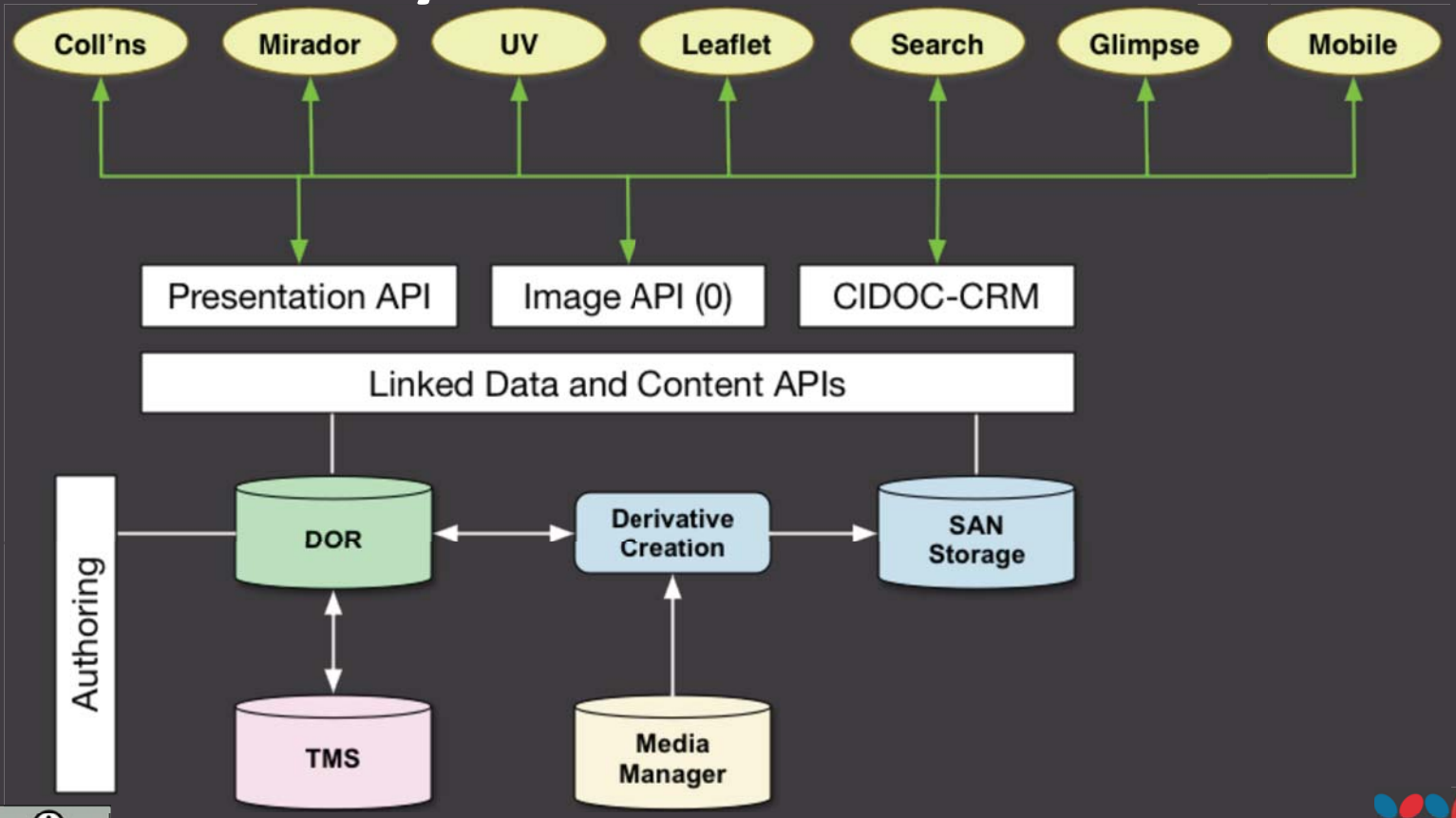
Getty Museum via LOD+IIIF



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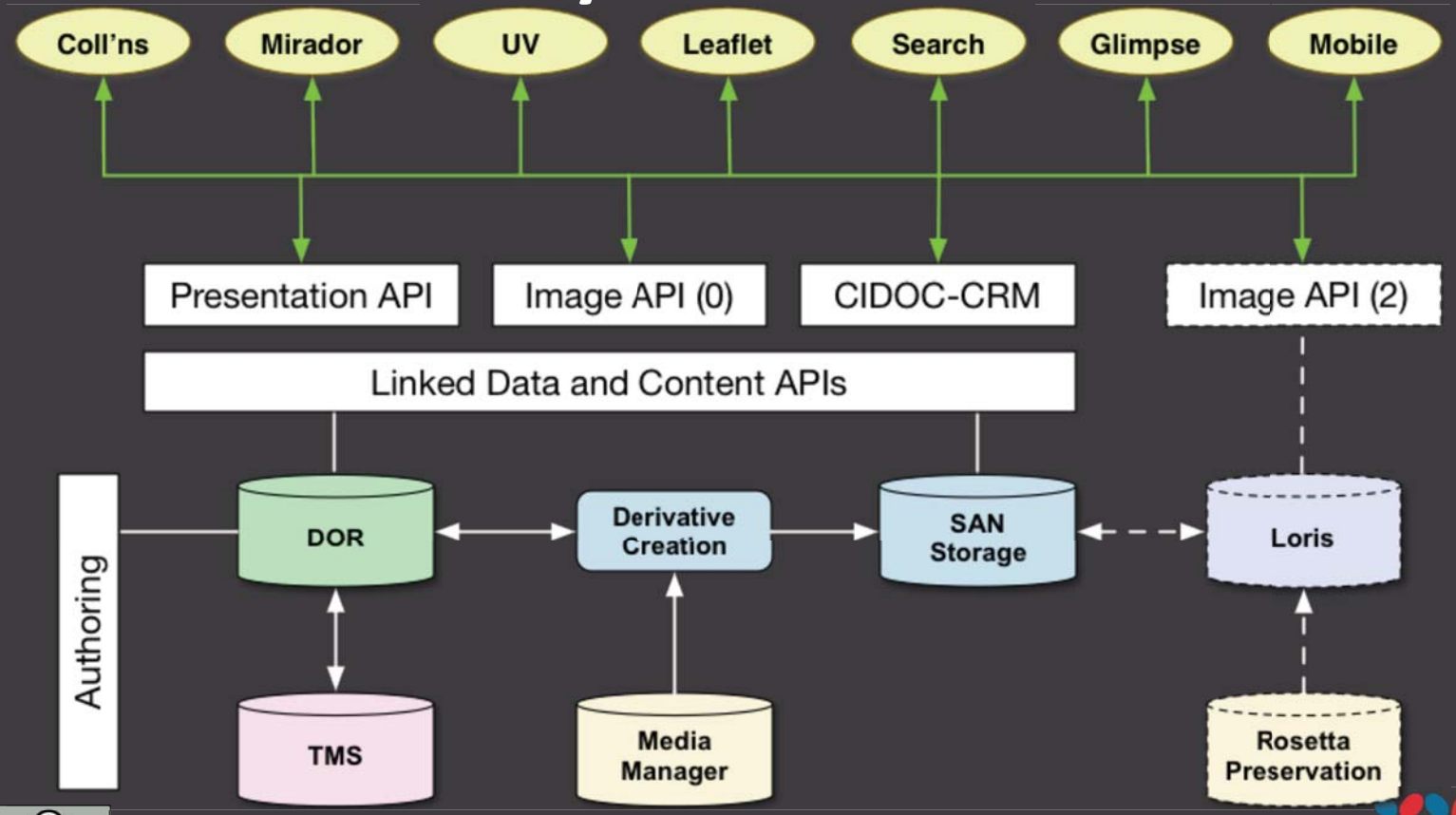
Getty via LOD+IIIF



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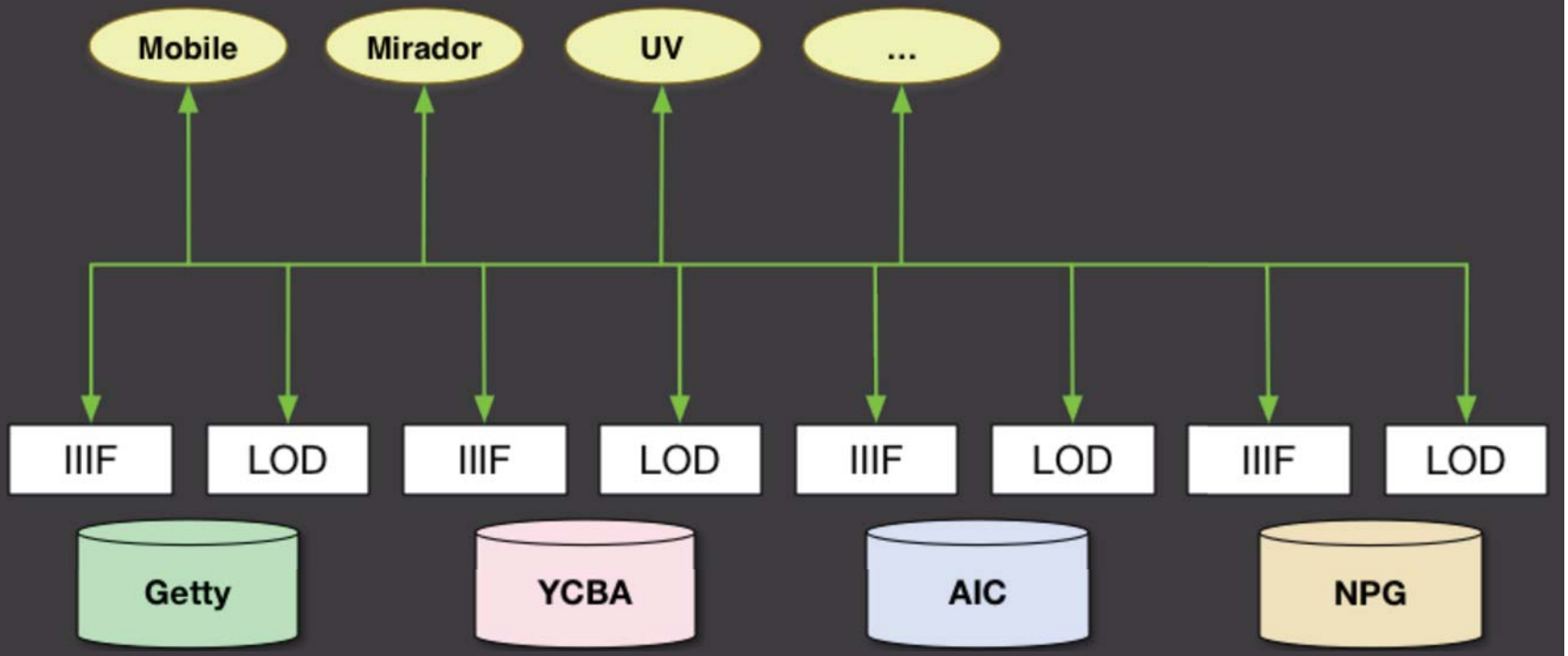
Museum Community: LOD+IIIF



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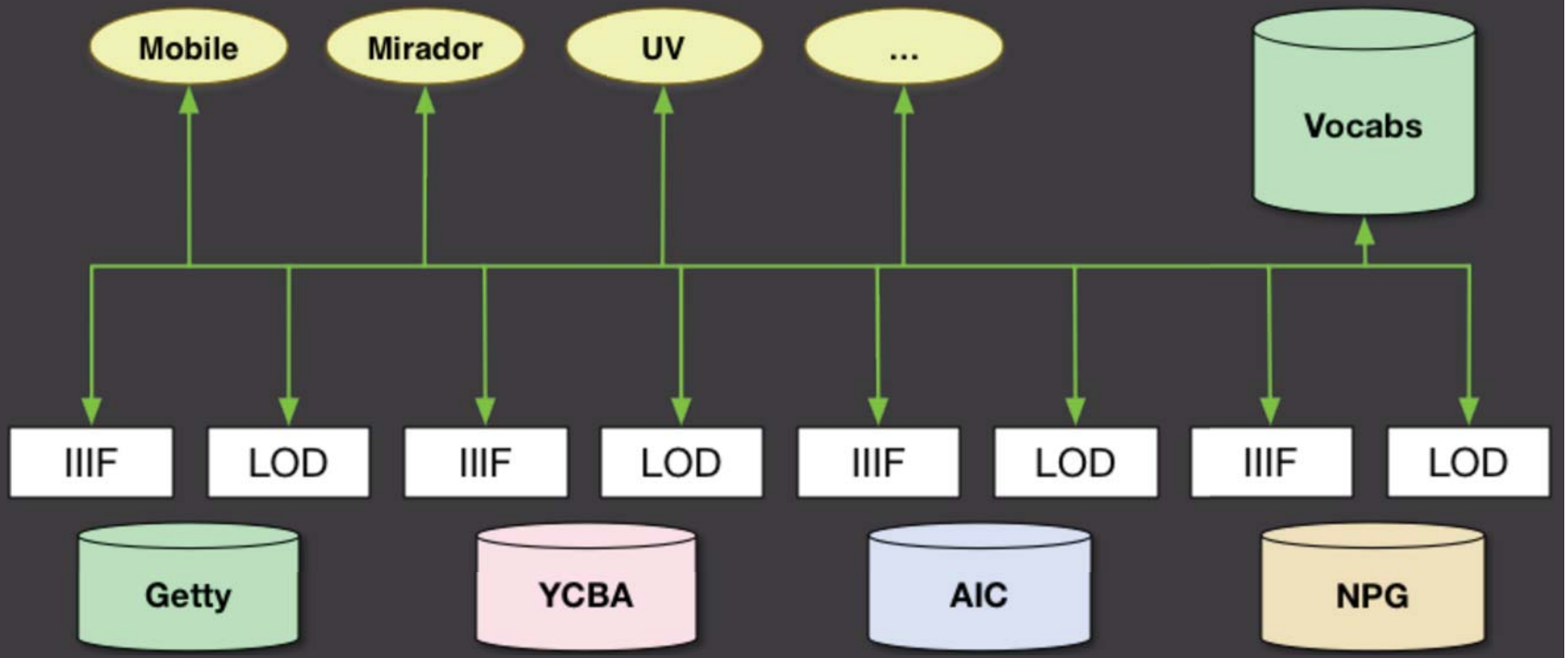
Museum Linked Data Ecosystem



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Thank You!

Rob Sanderson / rsanderson@getty.edu

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

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