

# IIIF Curation Platform: Canvas-Level Linking Structure for User-Driven Content Creation



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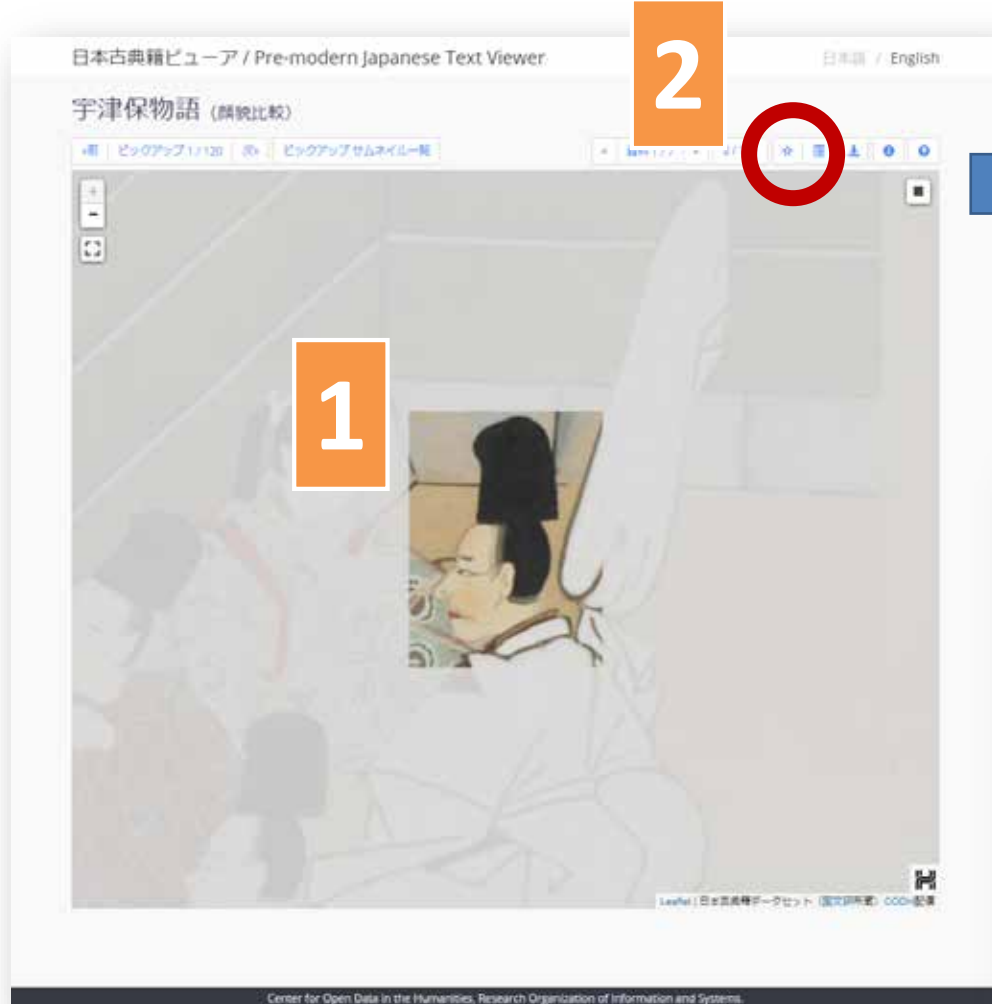
National Institute of Informatics

<http://codh.rois.ac.jp/> @rois\_codh

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# IIF Curation Viewer (since 2016)

<http://codh.rois.ac.jp/software/iif-curation-viewer/>



1. Draw a rectangle.
2. Add to favorites.



IIF official website introduces five IIF image viewers, including IIF Curation Viewer.

# Canvases as first-class citizens – IIF Fall Working Meeting, December 2020

[https://iiif.io/event/2020/fall\\_working\\_meeting/](https://iiif.io/event/2020/fall_working_meeting/)

The IIF manifest is the core structural element for the Presentation API. It's what we expose to the public, and it serves as the display mechanism that gathers together and orders annotations in a specific context. However, as we expand our usage of IIF, increasingly we see two patterns:

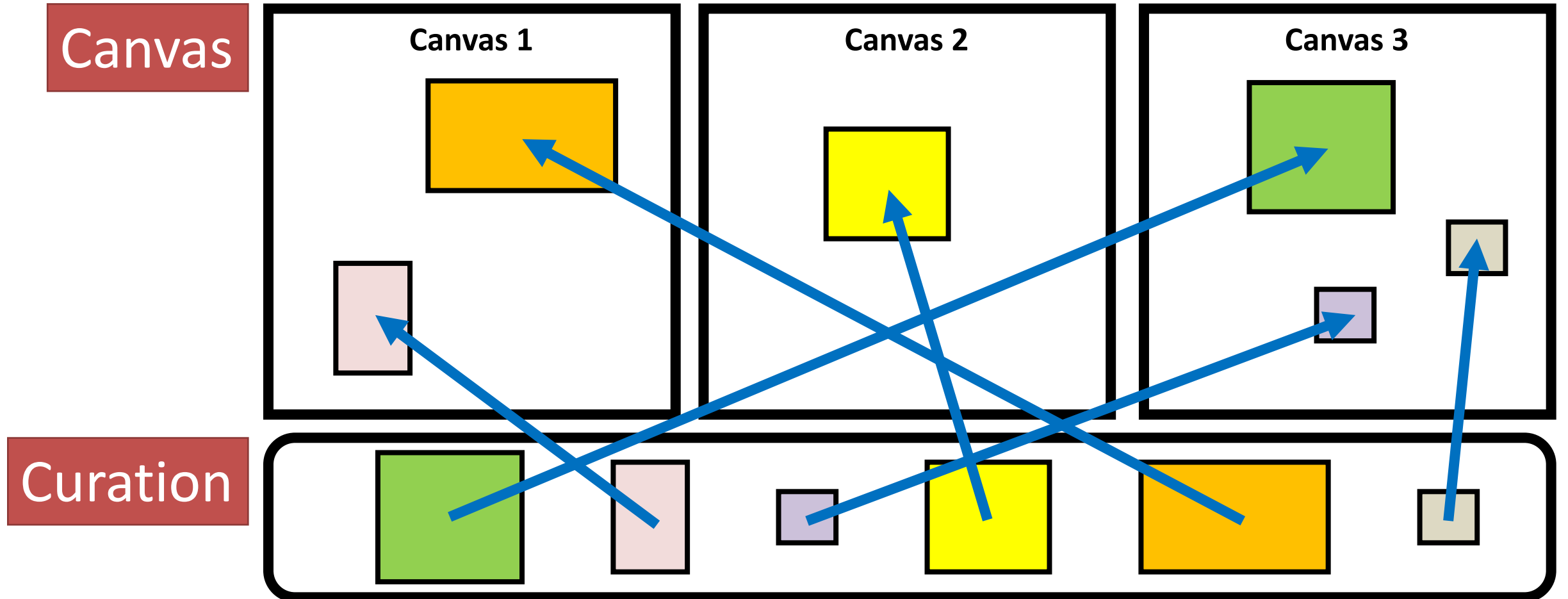
First, that **digitized images are used in more than one context**—this is particularly true of non-bibliographic use cases. Within the museum context, what appears within a Collection Online may differ from a given exhibition, or publication, or blog post.

Second, as computer vision and other techniques that operate against the pixels of an image become easier to use and more mainstream, **we see more annotation layers being created and associated with a given image**.

The intersection of these two patterns means that increasingly, our manifests become **curated assemblages of images and annotations geared for a specific presentation context**. In this context, the IIF Canvas becomes an essential grouping resource for assembling contextual information, and may increasingly become **a resource that needs to be shared across many manifests**, as well as filtered for specific contexts and presentations.

This session will discuss how an institution could begin to treat **Canvases as a first-class resource** within the underlying institutional data model, and how this would change the way that Manifests are created and used, with the goal of sharing knowledge and use cases, laying the foundation for a whitepaper-style resource targeted at back-end implementers, and identifying potential problems with this use case.

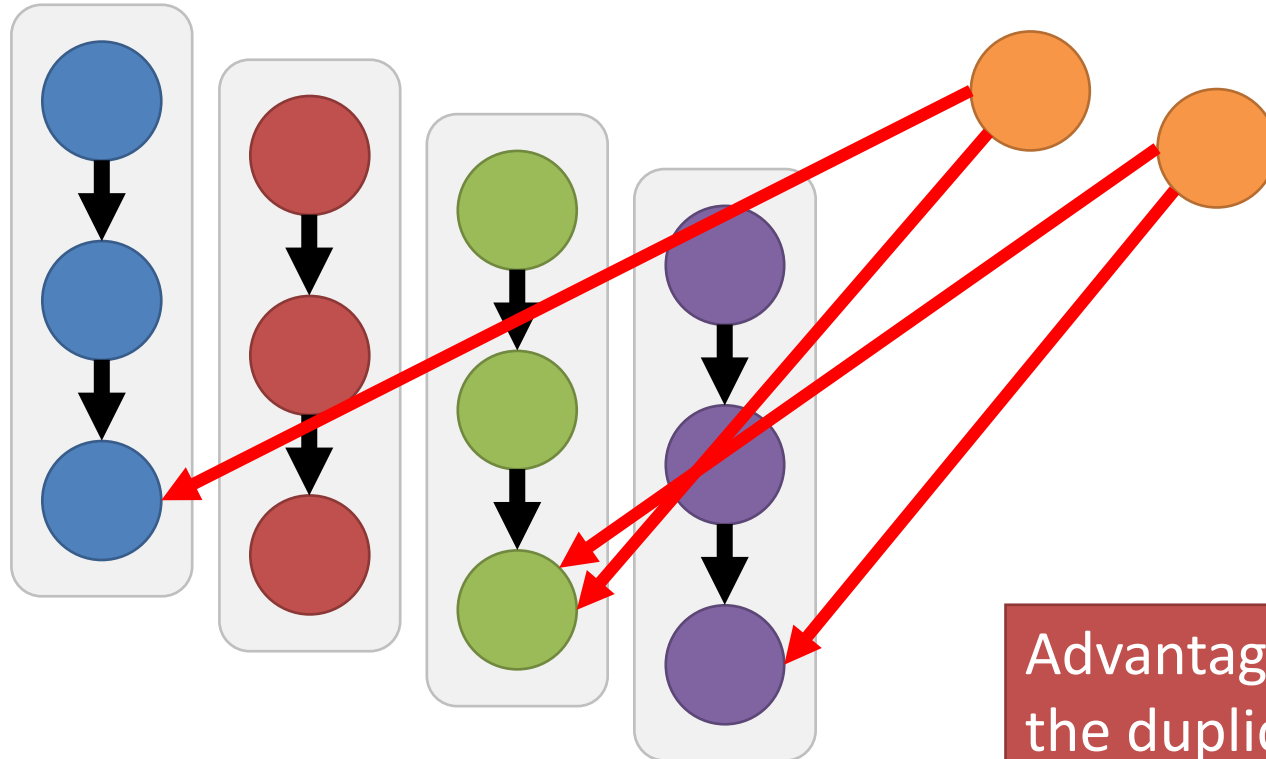
# Curation = Canvas-Level Linking Structure



# Manifest and Curation

## Manifest from providers

A manifest represents a physical container such as a book.

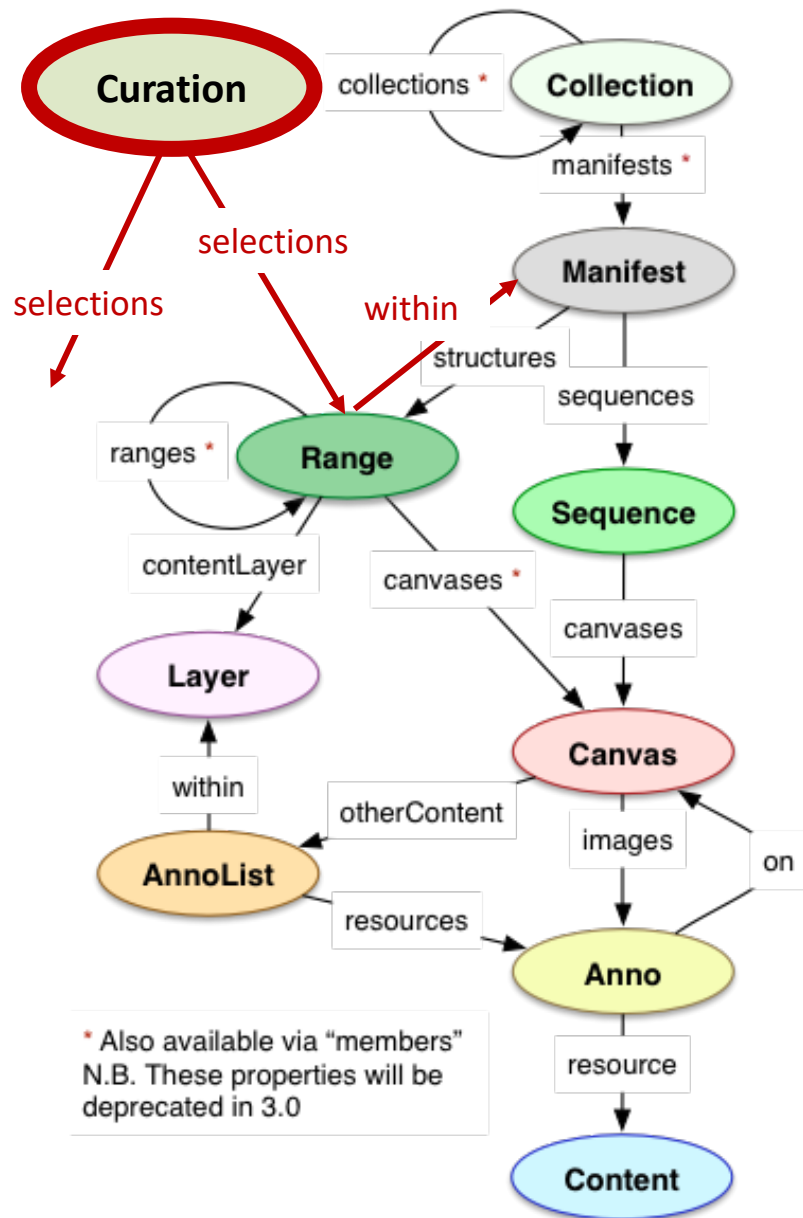


## Curation by users

Curation is a logical container located **outside of the Manifest** to allow flexible groupings of canvases.

Advantage: Curation does not require the duplication of Manifests.

# Extension to Presentation API 2



```

"selections": [
  {
    "@id": "http://codh.rois.ac.jp/pmjt/book/200014778/range/r1",
    "@type": "sc:Range",
    "label": "Curated contents from 『画本虫撰』 ",
    "canvases": [
      "http://codh.rois.ac.jp/pmjt/iiif/200014778/canvas/00000",
      "http://codh.rois.ac.jp/pmjt/iiif/200014778/canvas/00011",
      "http://codh.rois.ac.jp/pmjt/iiif/200014778/canvas/00023",
      "http://codh.rois.ac.jp/pmjt/iiif/200014778/canvas/00023#xywh=3435,2487,840,750"
    ],
    "within": "http://codh.rois.ac.jp/pmjt/book/200014778/manifest.json"
  }
],
  },

```

# IIIF Curation Platform

<http://codh.rois.ac.jp/icp/>



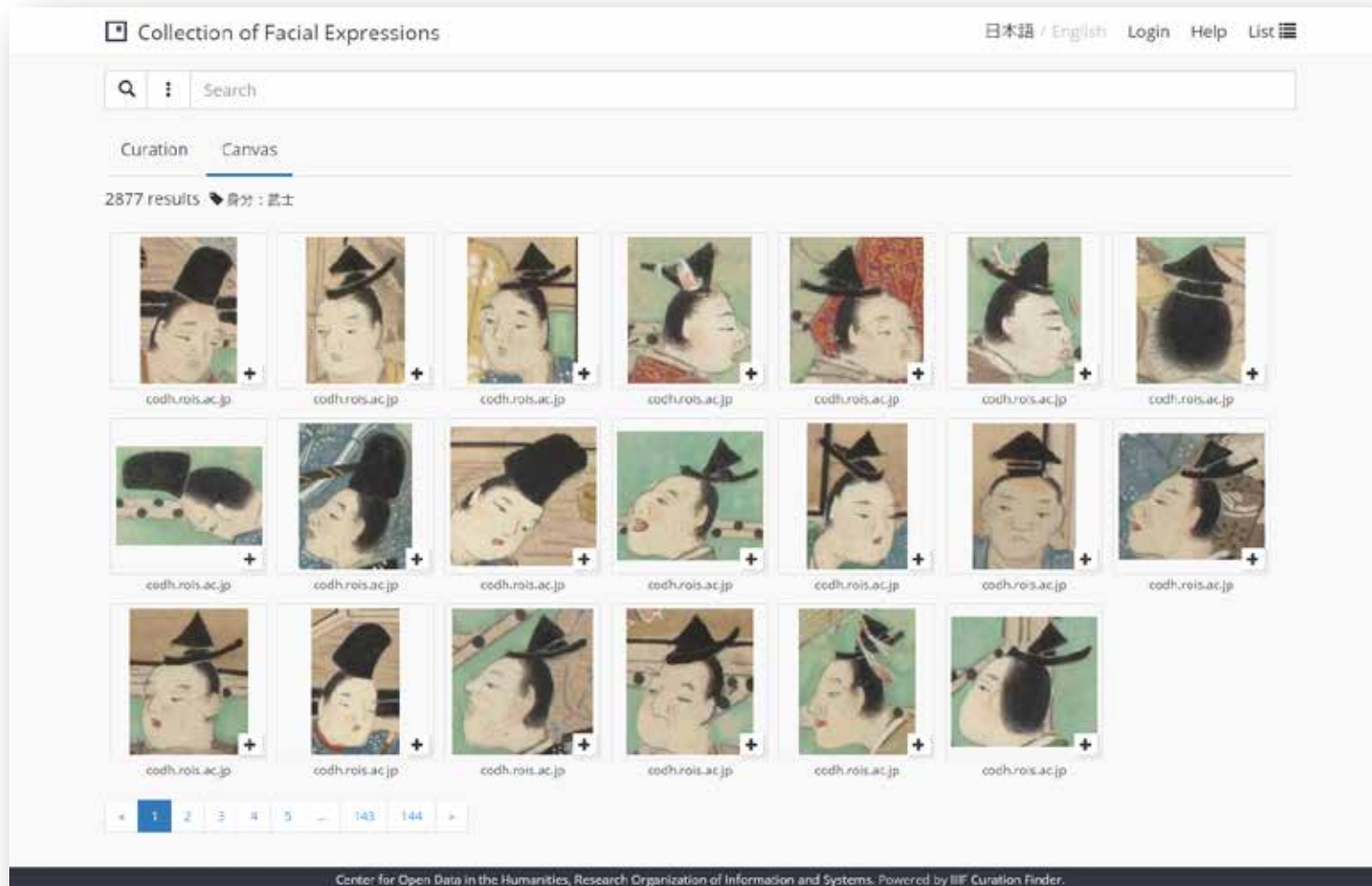
Logo of the IIIF Curation Platform

An open-source software suite for developing the **concept of curation** to **bring out the full potential of IIIF**.

- 7 JavaScript apps** for the web browser.
- 1 domain-specific JavaScript app.**
- 3 Python scripts** for the server side.
- 1 Docker** setting for installation.

# 1. Collection of Facial Expressions (KaoKore)

<http://codh.rois.ac.jp/face/>

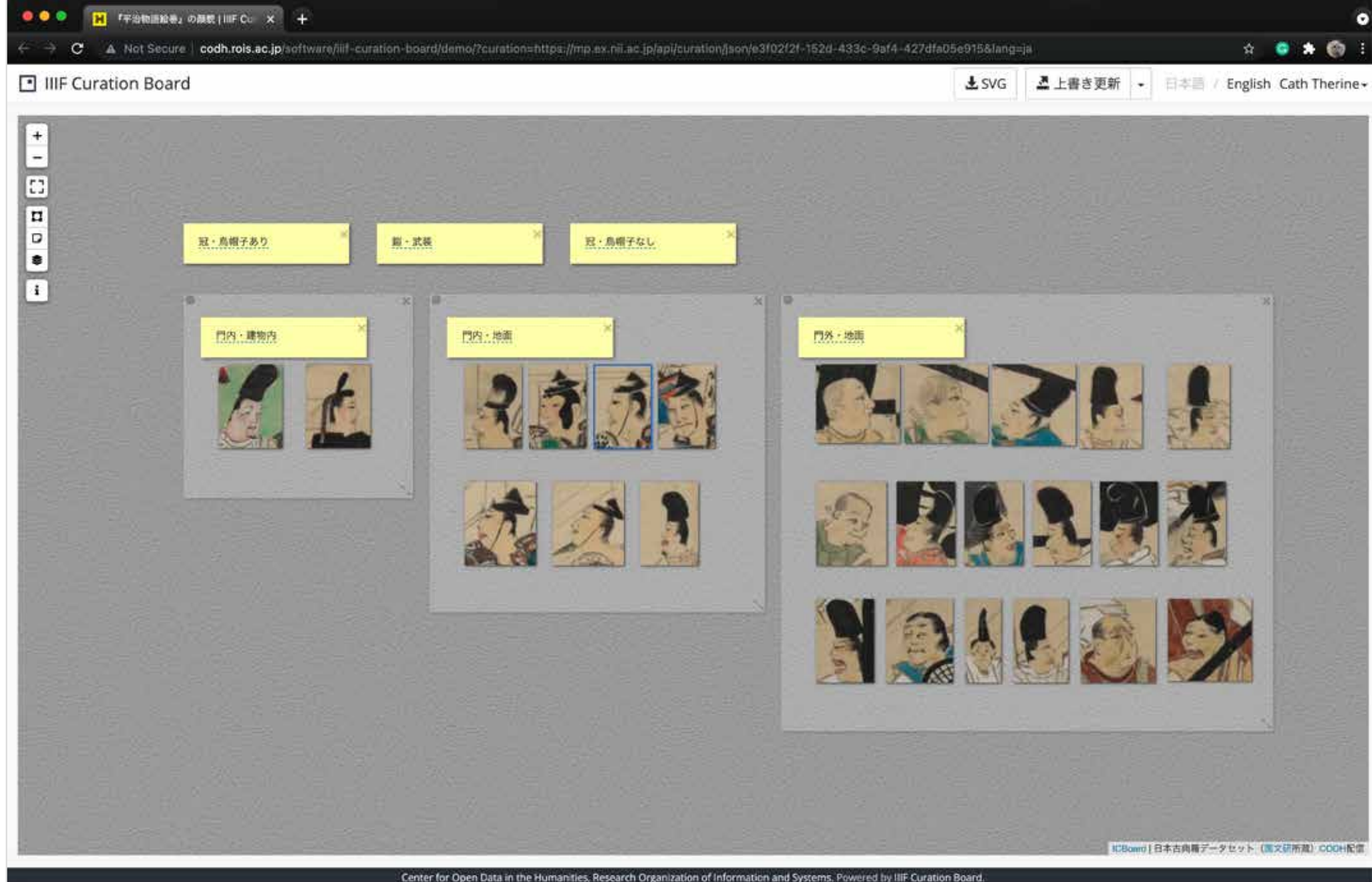


1. **IIF Curation Viewer** for cropping and collecting a part of images.
2. **IIF Curation Finder** for searching the collection by metadata.
3. **IIF Curation Board** for analyzing the collection for art history research (**digital humanities**).



# IIIF Curation Board

<http://codh.rois.ac.jp/software/iiif-curation-board/>



# 2. North China Railway Archive

<http://codh.rois.ac.jp/north-china-railway/>



**IIF Curation Viewer**  
**Embedded** for showing images  
and metadata together.

# Preservation of the Museum Exhibition



1. **Museum exhibition** (Feb. 2019) is preserved **in the form of curation** with captions as metadata.
2. **IIF Curation Player** offers not only browsing but also **automatic slideshow** for a virtual exhibition.

<http://codh.rois.ac.jp/north-china-railway/iiif-curation-player/?curation=http://codh.rois.ac.jp/north-china-railway/activity/kum-2019/exhibition.json&lang=ja>



# 3. IIF Curation Viewer: Annotation View Mode



1. We annotate **map markers** using **canvas coordinates** as marker locations.
2. We overlay on top of IIF-based old maps **from a different provider.**

Source: National Diet Library

# Edo Maps

<http://codh.rois.ac.jp/edo-maps/>

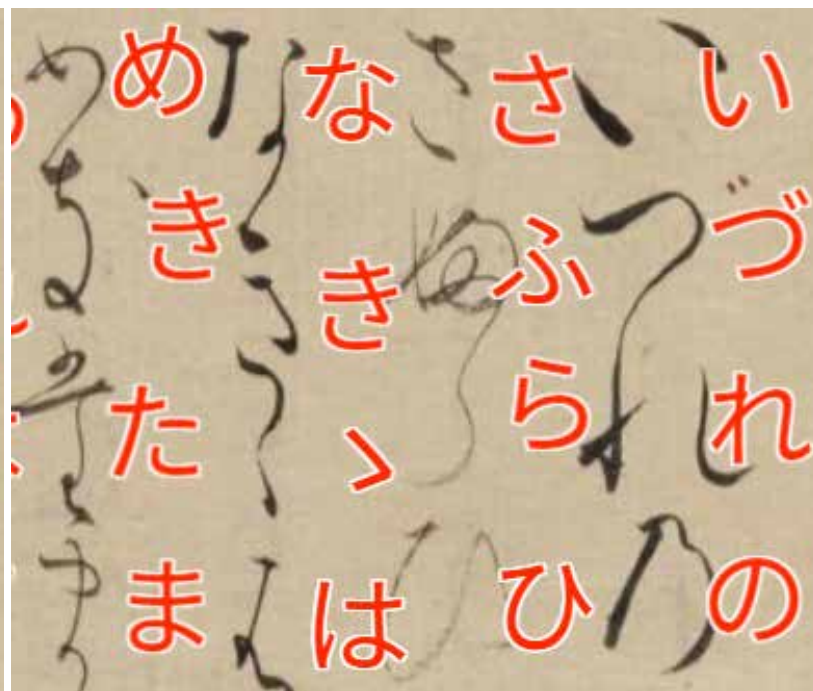
The screenshot shows a web browser window with the URL <http://codh.rois.ac.jp/edo-maps/>. The page header features the logo of the Center for Open Data in the Humanities (CODH) and navigation links for Japanese and English, along with a menu icon. Below the header, the page title is "江戸マップβ版". The main content area contains a paragraph explaining that the Edo Maps β version is based on 29 historical maps from the National Diet Library, containing 87,194 place names. It also notes that the data is integrated with modern maps and information, and is used for historical big data and GIS. A second paragraph states that the maps used are digitized from original materials and may contain some inaccuracies or biases, but they are presented as they are for academic research purposes. Below this is a section titled "江戸マップβ版地名検索" (Edo Maps β version Place Name Search). This section contains a search form with three input fields: "地名検索" (Place Name Search) with a placeholder "地名の部分一致で検索", "分類選択" (Classification Selection) with radio buttons for "施設", "屋敷地", "寺社", "商店", "地名", "町村字", "海川池", "名所", and "その他", and "ID検索" (ID Search) with a placeholder "江戸マップIDで検索" and a note "(地名検索／分類選択は無効となります)". A "Submit" button is located to the right of the form. Below the form, a note states: "異体字・旧字は常用漢字に変換してから検索します。地名とIDの両方が入力された場合はIDを優先します。" (Searches for variant characters and old characters after converting them to common Chinese characters. If both place name and ID are entered, ID is prioritized). At the bottom of the page, there is a section titled "尾張屋版" (Owariya Edition) with a sub-section "尾張屋版とは" (What is Owariya Edition).

# 4. IIF Curation Viewer: Annotation View Mode

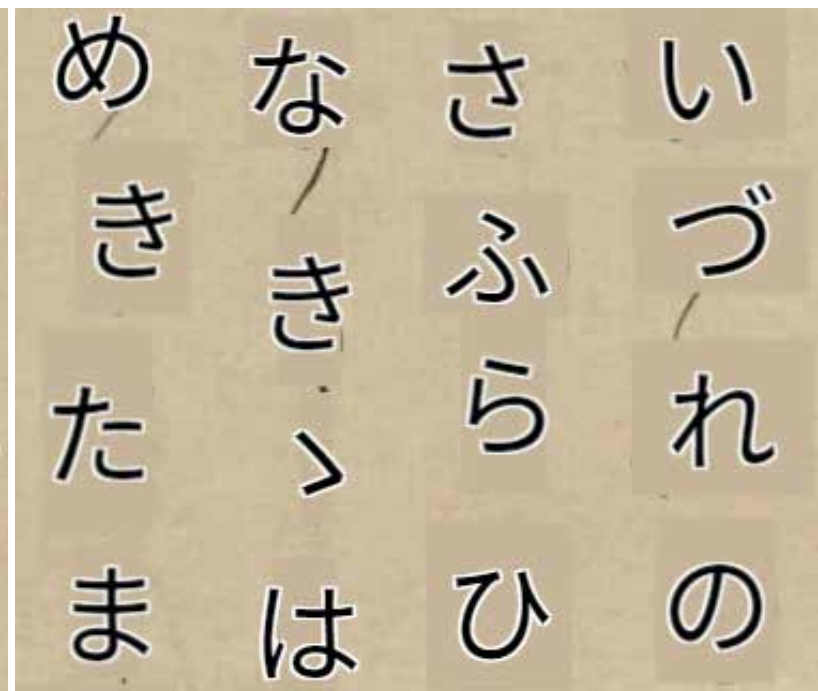


**Box Frame Marker**

Source: Genji Monogatari (NIJL)



**Character Marker  
(Standard Mode)**



**Character Marker  
(Overwrite Mode)**



# KuroNet Kuzushiji Recognition

<http://codh.rois.ac.jp/kuronet/>

徒然草 | 日本古典籍データセット

Not Secure | codh.rois.ac.jp/pmjt/book/200019959/

人文学オープンデータ共同利用センター  
Center for Open Data in the Humanities

日本語 / English | メニュー

日本古典籍データセット / 書名一覧 / 徒然草

## 徒然草

日本古典籍画像の閲覧 (IIIF Curation Viewer) : 画像表示 / サムネイル表示

マニフェストファイル (IIIF対応ビューア用)

デジタル画像とメタデータの一括ダウンロード (ZIP 256.22 MB)

KuroNetくずし字認識サービス

### 書誌情報 (メタデータ)

項目	内容
DOI	DOI: 10.20730/200019959
国文研書誌ID	200019959
統一書名	徒然草

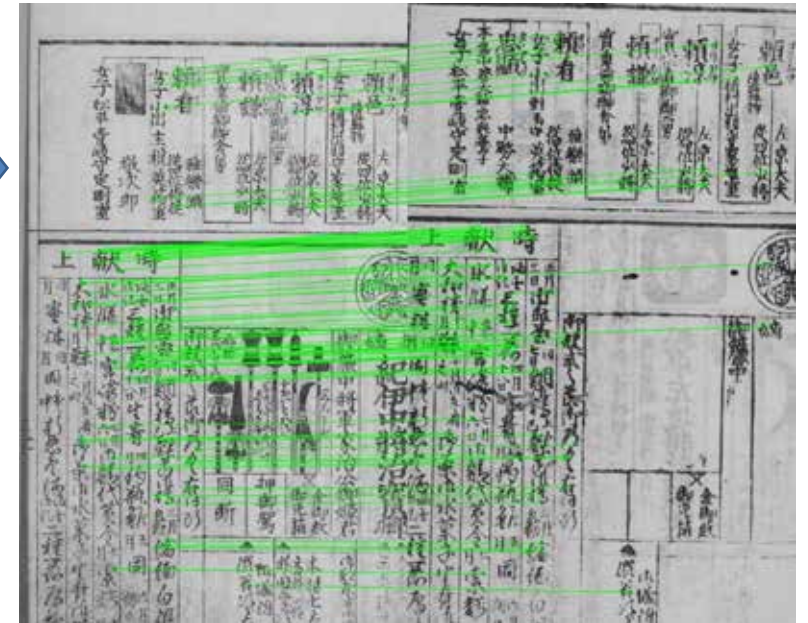
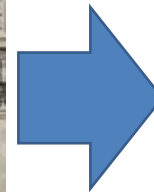
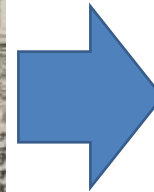
# 5. Visual Version Comparison of Printed Books

<http://codh.rois.ac.jp/bukan/>

**Differential reading:**  
highlighting visual differences between different books with the help of computational algorithms.

[http://codh.rois.ac.jp/pmjt/iiif/200018823/200018823\\_00010.tif/pct:20,20,25,60/563,900/0/default.jpg](http://codh.rois.ac.jp/pmjt/iiif/200018823/200018823_00010.tif/pct:20,20,25,60/563,900/0/default.jpg)

[http://codh.rois.ac.jp/pmjt/iiif/200018825/200018825\\_00011.tif/pct:20,20,25,60/563,900/0/default.jpg](http://codh.rois.ac.jp/pmjt/iiif/200018825/200018825_00011.tif/pct:20,20,25,60/563,900/0/default.jpg)



Feature detection and matching by computer vision



# Vdiff.js

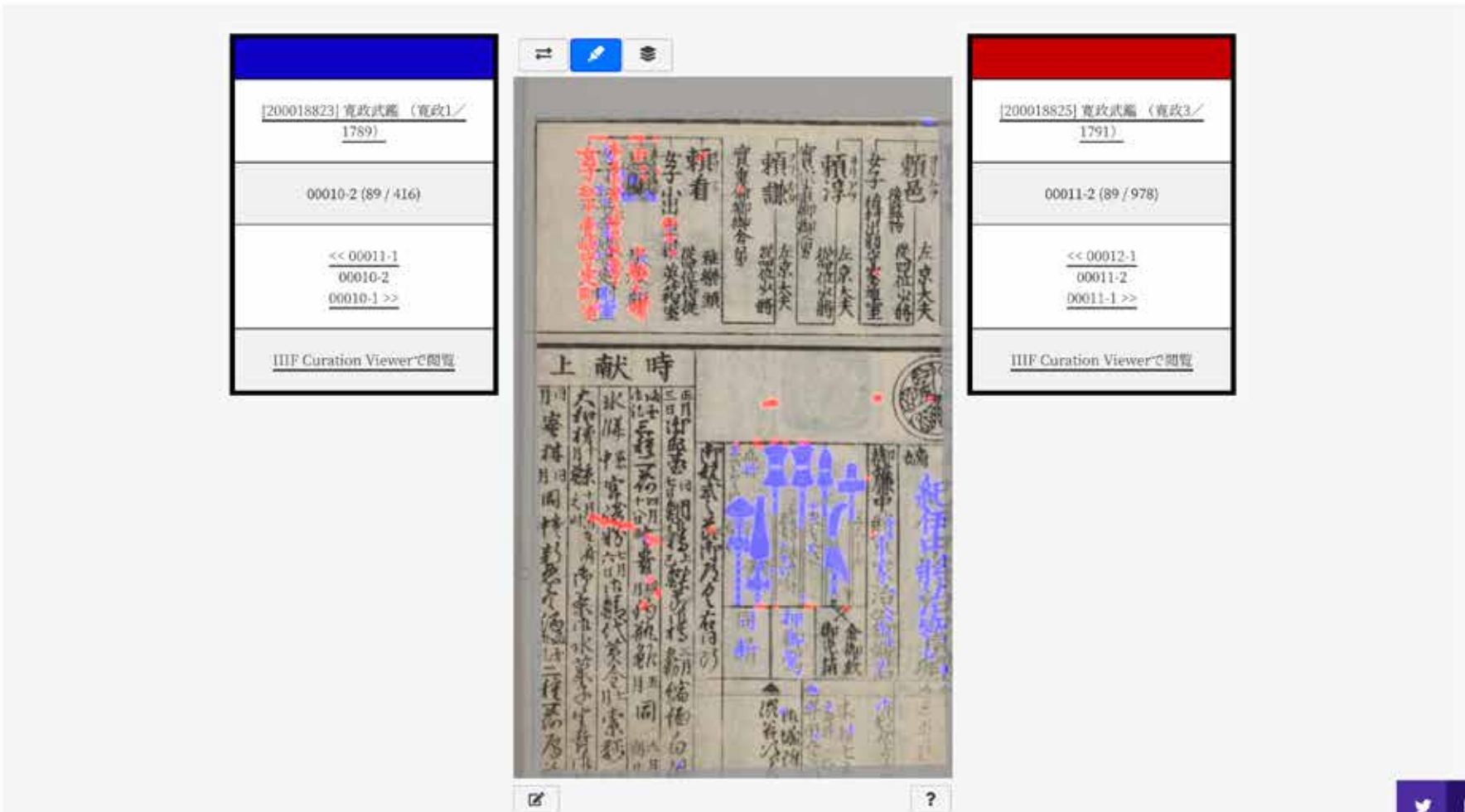
<http://codh.rois.ac.jp/software/vdiffjs/>

武鑑全集

Edo 150

ページ画像比較

[200018823] 寛政武鑑 (寛政1/1789)
00010-2 (89 / 416)
<< 00011-1 00010-2 00010-1 >>
<a href="#">IIIF Curation Viewerで閲覧</a>



[200018825] 寛政武鑑 (寛政3/1791)
00011-2 (89 / 978)
<< 00012-1 00011-2 00011-1 >>
<a href="#">IIIF Curation Viewerで閲覧</a>

2021/6/23

2021 IIIF Conference

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# Unique features of the IIF Curation Platform

1. It enables **users** to create and publish **original** image collections based on themes. (**KaoKore**)
2. It enables **users** to call and use **original** image services delivered from service providers other than the image provider. (**KuroNet**)
3. It enables **users** to provide an overlay display of **original** annotation information. (**Edo Maps and KuroNet**)
4. As a platform supporting the entire workflow of users freely collecting, processing, and publishing images, ICP is playing a role in pioneering new uses of IIF images.

IIF Curation Platform Cultivating the Usage of Images in the Open World, Current Awareness, No. E2301, No.398, 2020.09.17, <https://current.ndl.go.jp/e2301/>



## Acknowledgment and more..

- Core Developers: **Jun Homma** (Flx Style), **Tarek Saier** (NII Internship Student, Karlsruhe Institute of Technology)
- Collaborators: **Chikahiko Suzuki**, **Tarin Clanuwat** (CODH)
- Main sources of images: National Institute of Japanese Literature, National Diet Library, Kyoto University.
- **Official Website:** <http://codh.rois.ac.jp/icp/>
- **Tutorial:** <http://codh.rois.ac.jp/icp/tutorial/>