

April 30, 2021  
Keio University

– Two Major Projects as Part of the “Cross-scapes” Exhibition –  
Special Program “Glyph-shape: A Landscape of Kuzushiji Revealed by AI”  
KeMCoM Project: Students’ Lab for “Digiana”

Keio Museum Commons opened its inaugural event series “Cross-scapes: Interconnecting Art” on 19 April, 2021. KeMCo is also hosting a special program called “Glyph-shape,” which invites visitors to experience the richness of Chinese character or *kanji* forms through the latest technology in collaboration with the ROIS-DS Center for Open Data on Humanities (CODH). In this program, the newly developed *kuzushiji* recognition AI app “Miwo” and “IIIF Curation Viewer,” both of which utilize CODH's *kuzushiji* recognition AI “KuroNet,” allow visitors to experience actually reading the text of artworks at the exhibition. Please also visit the “KeMCoM Projects” which are organized by our student staff (“KeMCo Members (KeMCoM)”).

**1. Special Program “Glyph-shape: A Landscape of Kuzushiji Revealed by AI”**

The artworks on display in the Letter-scape section are filled with characters of various forms. In particular, *hiragana*, which were created from *kanji* in the Heian period, have a wide variety of forms depending on the original *kanji* (*jibo*) and how they were transformed.

It is said that only a few thousand people (about 0.01% of the Japanese population) can read *kuzushiji* (Chinese characters written in cursive) fluently. It is therefore difficult for visitors to read and enjoy artworks with *kuzushiji*, even if displayed in exhibitions. With the support of the ROIS-DS Center for Open Data on Humanities (CODH), the Glyph-shape program explores the richness of the forms of characters through the latest technology.

Two apps are available to use while visiting the exhibition: Miwo, an app that uses CODH's *kuzushiji* recognition AI KuroNet to read *kuzushiji* from pictures taken with a smartphone camera, and IIIF Curation Viewer, a web app that displays the results of *kuzushiji* recognition overlaid on IIIF (International Image Interoperability Framework) images. These apps offer visitors the experience of reading the *kuzushiji* texts in the artworks exhibited in Letter-scape.

< What is the *kuzushiji* recognition AI application “Miwo”? >

The *kuzushiji* recognition AI application Miwo is a smartphone app that uses CODH's *kuzushiji* recognition AI KuroNet. This exhibition will be the first opportunity for the public to experience the app, which will be further improved based on feedback from users. The name “Miwo” comes from the 14th chapter of The Tale of Genji, “Miwotsukushi,” which refers to signs marking waterways. Just as a *miwotsukushi* is a guide for boats in the sea, we aim to make our Miwo app a guide for reading *kuzushiji* materials.



Miwo recognizes all the *kuzushiji* characters in an image at once and replaces them with modern characters. It also highlights the same type of character, displays information about *jibo*, and outputs the recognition results as text, allowing users to read and look up the *kuzushiji* texts themselves.

<References (Japanese language only)>

What is KuroNet?: <http://codh.rois.ac.jp/kuronet/>

What is Miwo?: <http://codh.rois.ac.jp/miwo/>

What is the IIIF Curation Viewer?: <http://codh.rois.ac.jp/software/iiif-curation-viewer/>

Program introduction by CODH: <http://codh.rois.ac.jp/exhibition/kemco-2021/>

**2. KeMCoM Project: Students' Lab for "Digiana"**

In this project, undergraduate and graduate students across disciplines and campuses learn about the relationship between the digital and the physical [analog] while getting a closer look at the practical aspects of putting on exhibitions and keeping collections at the museum. Based at the KeMCo Studi/O (East Annex Building 8F), the project also facilitates opportunities to develop cross-media creative works. At the lab, students share their interests, knowledge, and experiences, and explore new possibilities in culture/arts and fabrication from their own unique perspectives.

- Kawaiinfo: Explore artworks from the perspective of "Kawaii"  
We create and post "Kawaii" content on our SNS accounts from student members' perspectives. For example, we employ AR filters based on the visual designs of the exhibited works and exhibition posters to make the exhibition more accessible and able to be enjoyed at one's own pace.

Twitter: <https://twitter.com/kemcomembers>

Instagram: <https://www.instagram.com/kemcomembers/>

Note: <https://kemco-keio.note.jp/>

- 3D Virtual Exhibitions: A virtual representation of KeMCo in digital space (coming soon)  
The 3D virtual exhibitions provide our online visitors with an opportunity to break the linear itinerary and offers a new way of appreciating the exhibitions we hold. We are currently preparing a digital space using Mozilla Hubs (Browser-based social VR application) and a 360-degree camera in order to create a museum-viewing experience that is unique to the digital environment.  
\*Prototypes will be available for viewing at the venue.



- Augmented Aesthetics: Expanding the Aesthetic “Sense”  
During the event series Cross-scapes, Augmented Aesthetics presents three exhibitions in which visitors can experience artworks in digital and analog forms, including undertaking projection mapping based on the images of exhibited artworks at the entrance to the East Annex Building. We hope visitors enjoy the photogenic space, as well as the interactive experience at the venue.



Project Website (URL): <https://studio.kemco.keio.ac.jp/kemcom/> (Japanese language only)

Exhibition: Cross-scapes: Interconnecting Art

Period: April 19 (Mon)—June 18 (Fri.), 2021 (closed weekends and holidays)

Opening hours: 10 a.m. — 6 p.m.

Venue: Keio University Mita Campus East Annex

Admission: Free of charge (advance reservations required)

<https://bit.ly/3d1MOaB> (Keio CulturePass)

\*Please direct any requests or inquiries to the contact information provided below.

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