## Tohoku University's New Project "Convergence Knowledge Digital Archive"

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**Tohoku University Main Library** 

## **Outline**



- 1. Overview of Tohoku University & Library
- 2. New Project
  Convergence Knowledge Digital Archive

## 1.1 Tohoku University





Library established in 1911 (Former Library built in 1925 is now used for University Archives.)

- Founded in 1907
   the Philosophy of Open Doors
   the Spirit of Research First
- Number of Students
   Undergraduate Students: 11,000
   Graduate Students: 7,000
   International Students: 3,115
- Faculty & Staff: 6,400

## 1.2 Library





## Main Library and 4 branches

Books 4.2 million

E- Journals 14,000 titles

Items in the 80,000 items

Repository

Items in the Over 67,000

Digital Archive +830,000 frame

counts

Main Library (Opened Nov. 1973)

## 1.3 International Student Lu Xun







#### Lu Xun Lecture Hall

魯迅 Lu Xun 1881-1936

was an international student of pre-School of Medicine, 1904-1905.

## 1.4 Current Initiative of Library



The First Penguin for Transformative Agreement in Japan 2022 Contract with

- Wiley 2022-2024
- Springer Nature 2023-2025
- Elsevier 2024-2026

Subsidize APC for Wiley, S/N, High IF Journals especially for Younger Researchers

## **Outline**



- 1. Overview of Tohoku University & Library
- 2. New Project

## Convergence Knowledge Digital Archive

- 1. Current Situation and Issues
- 2. New System
- 3. Road Map
- 4. Contents of First Stage
- 5. Development in the Second stage
- 6. Steering team

## 2.New Project



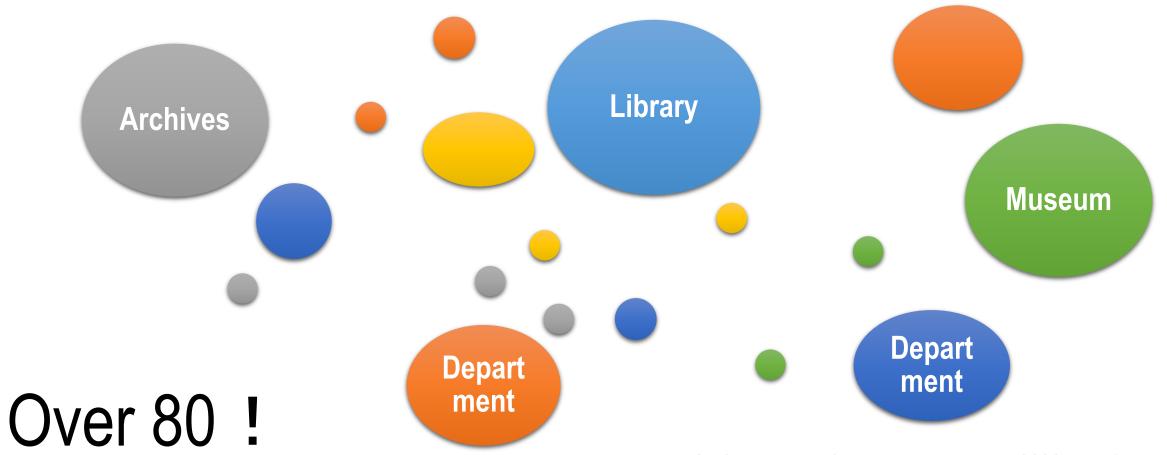
## Convergence Knowledge Digital Archive

will launch in SPRING 2024.

## 2.1 Current Situation and Issues



## Individual Databases on Campus



## 2.2 New System



## **Convergence Knowledge Digital Archive**



- Comprehensive and Large-Scale Resources for Rresearch and Education
- Utilized for Data-Driven Humanities
- Promotion of Integrated Knowledge that Fuses the Humanities and Science.



#### Convergence Knowledge Digital Archive

Library

Archives

Museum

Department

Dept. A

Dept. E

Dept. (

Web Site

Search
Link to each DB
Virtual Exhibition

International standard technique







Multilingual interface

Download by works

Search on a Single Webpage

System Linkage for visibility

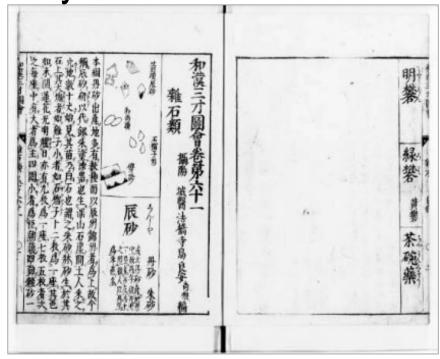


Database server



## Searching Ex. 辰砂 Cinnabar

## **Library Contents**



Wakan sansai zue 『和漢三才圖會』 Frame 1508 https://kokusho.nijl.ac.jp/biblio/100366093/https://doi.org/10.20730/100366093

#### **Museum Contents**



The Tohoku University Museum Collection Cinnabar 辰砂 http://webdb2.museum.tohoku.ac.jp/data\_base/ mineral/koubutu/mineraldb/index02.html

## 2.3 Road Map



| Г                    |                     |      |  |         |              |                                   |      | TOHO                           |  |  |
|----------------------|---------------------|------|--|---------|--------------|-----------------------------------|------|--------------------------------|--|--|
|                      |                     |      |  |         |              |                                   |      |                                |  |  |
|                      | 2023                |      | 2024   |         | 2025         | 2026                              | 2027 | 2028                           |  |  |
| SYSTEM               | *System<br>Developm |      |  |         |              | *Expand Functionality ex. OCR, AI |      | *Replace *Partical Cloud Burst |  |  |
| CONTENTS             |                     | Migr | ate Co   | ntents  |              |                                   |      |                                |  |  |
|                      |                     | Migr | ate Co   | ntents  |              |                                   |      |                                |  |  |
|                      |                     |      |  | Migrate | or Collabora | ate another DB on Cam             | ipus |                                |  |  |
| RE Edu               |                     |      |  |         |              |                                   |      |                                |  |  |
| REASERCH & Education |                     |      | *Develop a Digital Humanities education program *International Symposium |         |              |                                   |      |                                |  |  |
|                      |                     |      |  |         |              |                                   |      |                                |  |  |

## 2.4 Contents of First Stage

## 1 Representative Library Collections

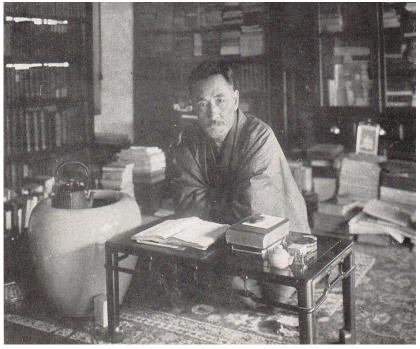


**Kano Collection** 

Kokichi Kano 1865-1942

Educator & Bibliographer

Acq.1912-1934 200,000 volumes of books of all fields of Edo (17-19 c. Japan) . Include 2 pieces of National Treasure.



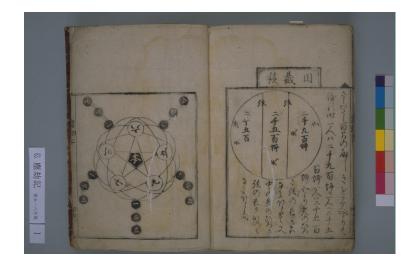
#### **Soseki Collection**

Soseki Natsume 1898-1916

**Novelist** 

Acq.1943-1944
3,000 volumes of books written by him and self-written manuscripts.





#### **Wasan Collection**

Acq.1979

mainly collected 1911-1968
12,000 volumes of
Books of Japanese Mathematics
developed in 17-19c.

14

## Library Digitization Chronicle



| Collection          | 1991                        | 1995                       | 1998                  | 2000 2001                    | 2003 2004                             | 2007                                | 2010 | 2017 | 2019                              | 2023 |  |
|---------------------|-----------------------------|----------------------------|-----------------------|------------------------------|---------------------------------------|-------------------------------------|------|------|-----------------------------------|------|--|
| Kano                | Micro<br>formed<br>21600 t. |                            |                       | Maps<br>1000 t.              |                                       | Postcard<br>Collection<br>17,000 l. |      |      | NIJL-NW project Rare books 500 t. |      |  |
|                     |                             |                            | Selected items 110 t. | Colored<br>Books<br>200 t    |                                       |                                     |      |      | Convert 20,300 t.  Reshoot 211 t. |      |  |
| Soseki              |                             | Micro<br>formed<br>3000 v. |                       | Digitized Manuscri pts 700 v |                                       |                                     |      |      | Cloud<br>Funding<br>Reshoo        | t    |  |
| Wasan               |                             |                            |                       |                              | Wasan<br>Portal<br>Launche<br>9200 t. | ed                                  |      |      |                                   |      |  |
| Other<br>Collection |                             |                            |                       |                              | Akita-ke<br>Manuscri<br>pts<br>400 t. |                                     |      |      | NIJL-NW project<br>1000 t         |      |  |



Refer to

Digitization strategy of Tohoku University Library and collaboration with the NIJL-NW project

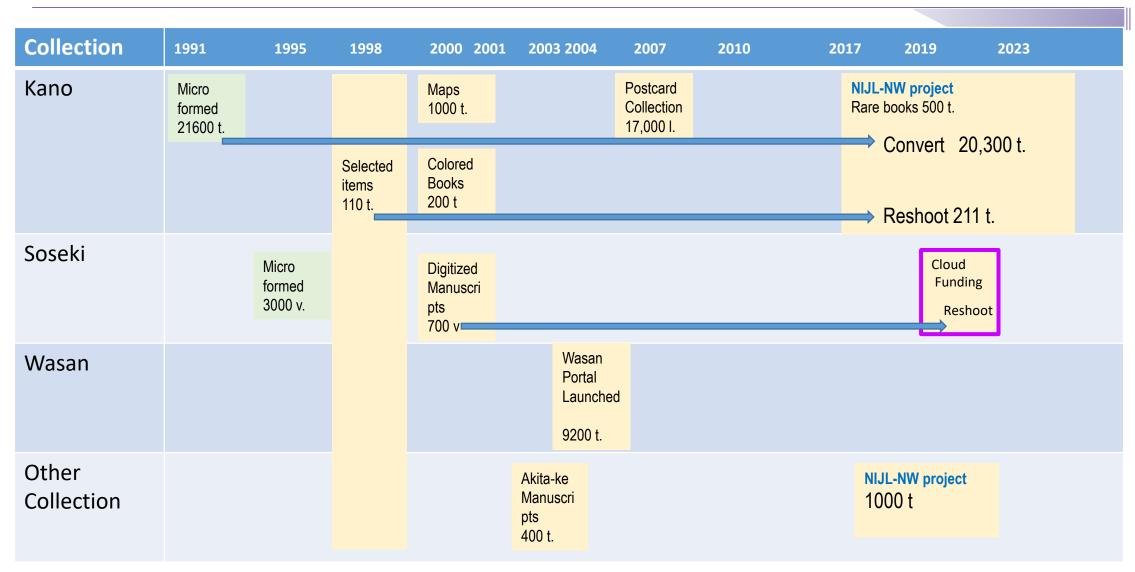
YOSHINAO KIKUCHI

2019 PRRLA Meeting, SEOUL Sep. 1st-4th 2019

Ref. https://pr-rla.org/pdfs/2019/presentations/yoshinao-kikuchi.pdf

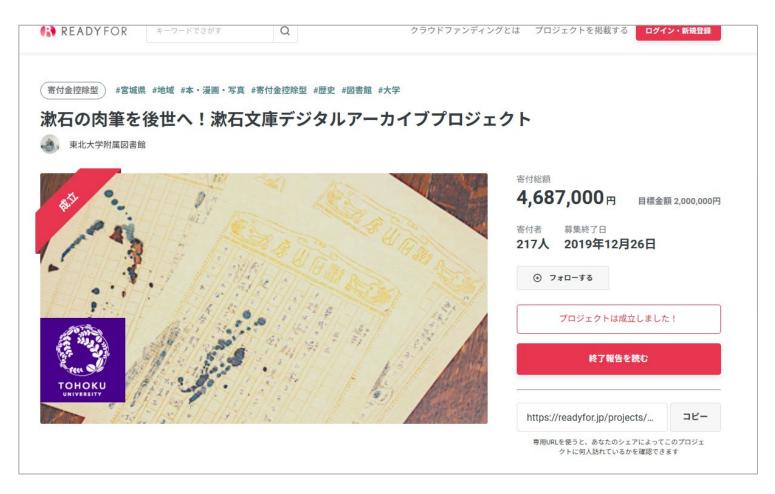
## Digitization Recently





## Cloud funding for Digitization of Soseki Collection 2019



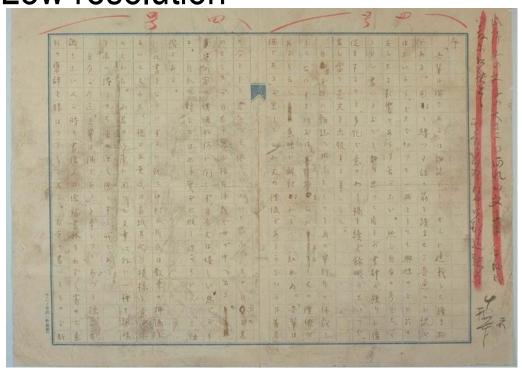


Donated over \$42,800 Doubled the target amount

Digitized 800 items



Low resolution



Manuscript of the preface of "Wagahai wa Neko de aru (I am a Cat.)"『吾輩は猫である』 1905.

## 2.4 Contents of the First Stage

2 Archive Collection: Student Movements in Japan

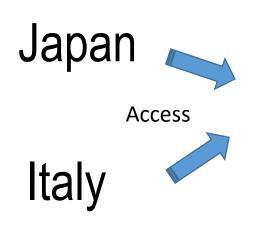


## Long 1960s Project

Collaboration between

International Graduate Program in Japanese Studies of Tohoku University

& Sapienza University of Rome

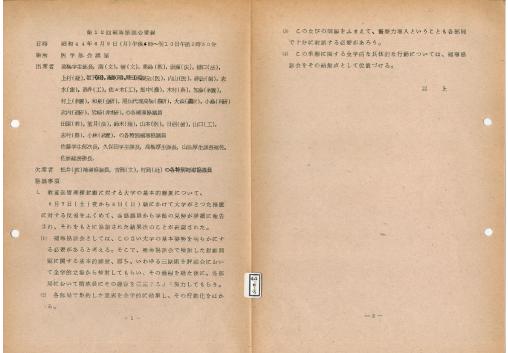


Materials of Student Movements 80,000 v.

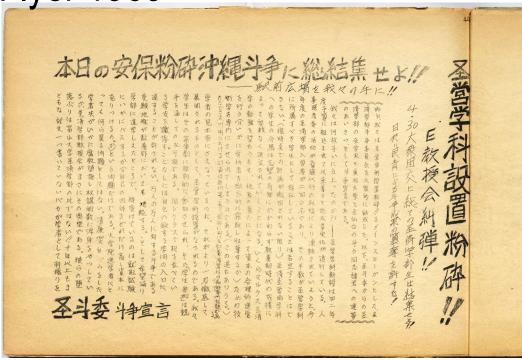
- Training of Young Researchers
- Research for Digital Humanities



Committee Document 1969



Flyer 1969

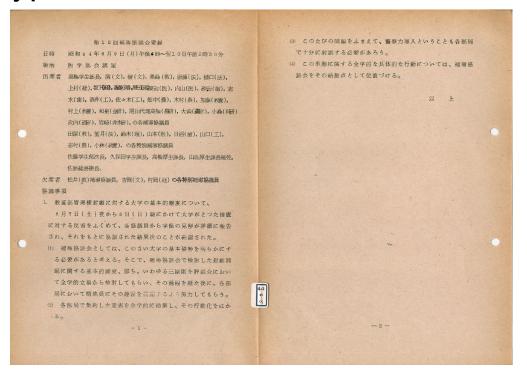


## 2.5 Development in the Second Stage

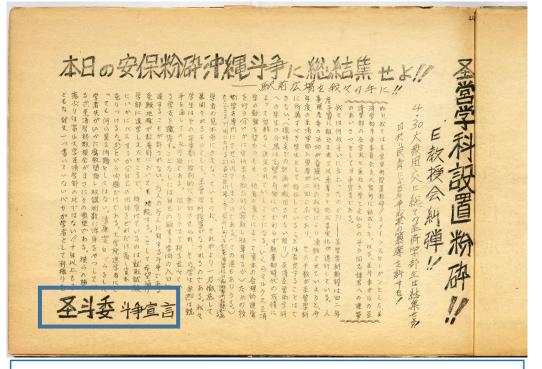
OCR, Image Search & Al



### Typewritten ⇒ OCR



## Mineograph ⇒ Image Search



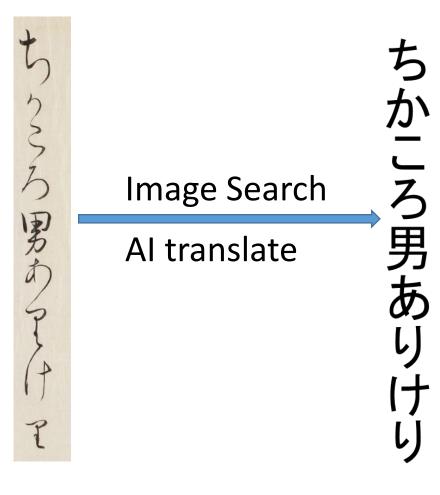
## 経斗委斗争宣言



#### "Ishitsu Soshi" 異疾草紙 Diseases and Deformities



Tohoku University Medical Library https://www.library.med.tohoku.ac.jp/collection/d-lib/yamainososhi/ks-1/ks-1-html/THML-00001-00021.html



## 2.6 Steering team!



## Convergence Knowledge Digital Archive



Graduate School of Arts and Letters



Library



Graduate School of Arts and Letters



Center for Northeast Asian Studies



The Center for Academic Resources Archives

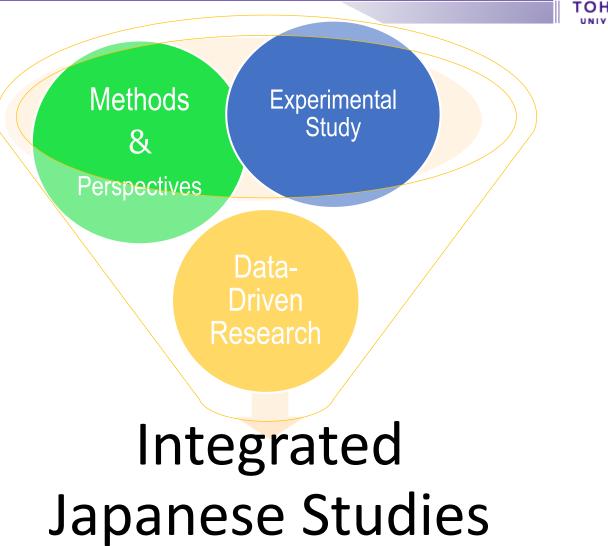


**Archives** 



#### The First Achievement!

# Center for Integrated Japanese Studies 2023.10



## Conclusion



# Convergence Knowledge Digital Archive



## Utilization

Research Source

Data-Driven Humanities

Data Analytics

**Exhibition** 

etc.

Center for Integrated Japanese Studies

Research Education Convergence Knowledge

Output

Digital
Archive

Library

**A**rchives

Museum

Departments



## A Part of the University's Mission

Tohoku University is the Only Candidate Currently on MEXT's "University for International Research Excellence" Shortlist Sept.1st 2023

University for International Research Excellence

Education

Open Knowledge Action Platforms

**Disaster Science** 

Research

Sustainability

Co-creation with Society

Nihon-gaku

New Project will Contribute to Open Knowledge Action Platforms

**Further Information** 

https://www.tohoku.ac.jp/en/news/images/135\_univ ersity\_for\_international\_research\_excellence.pdf



Whole Tohoku University's Academic Resources to the Public



- Comprehensive and Large Scale Resources for Research and Education
- Utilized for Data-Driven Humanities
- Promotion of Integrated Knowledge that Fuses the Humanities and Science.

## Thank you

https://www.library.tohoku.ac.jp/en/