Building a Digital Gateway to Southeast Asia’s Rare Resources: The NUS Libraries’ Strategy

Sim Chuin Peng
NUS Libraries
About NUS Libraries …Since 1905

Central Library

Chinese Library

CJ Koh Law Library

Music Library

Medical Library

Hon Sui Sen Memorial Library

Science Library

East Asia Institute Library

Digital Library
NUS Libraries’ Strategic Objectives & Goals

1. Curate & enhance access to quality content
2. Build partnership through engagement
3. Impart new literacy & research skills
4. Accelerate digital scholarly communication
5. Provide conducive spaces & facilities
6. Provide excellent administrative & operations services
7. Provide robust & agile IT infrastructure

Facilitate student success
Advance teaching excellence
Enhance Organisational Excellence
Increase research visibility & impact
Create value for the world

© Copyright National University of Singapore. All Rights Reserved.
Curate and Enhance Access to Quality Content

Action Plan

1. Develop NUS Libraries as a regional Southeast Asian Resource Hub
2. Develop a unified discovery service with AI applications to push new contents to users
3. Curate quality contents and open educational resources to support curriculum
4. Develop and enrich collections to support teaching, learning and research
5. License more resources with assessment to support online learning and research
6. Build a next-generation institutional repository that enables active data storage and long-term preservation of NUS scholarly outputs
7. Enhance access to unique materials which have research value and are used often
To be a Regional Southeast Asian Resource Hub

Collection & Content

• Curate and collect publications
  • in support of university-wide research, teaching and learning
  • in the print and digital format
  • in English, Chinese, Malay, Indonesian and Japanese languages

• Focus on the humanities and social sciences
To be a Regional Southeast Asian Resource Hub

Collection & Content

• Singapore-Malaysia Collection
  • broad and in-depth coverage of the economic, geographical, historical, political and social developments of Singapore, Malaysia, Brunei and ASEAN as an entity

• Southeast Asian Chinese Collection
  • rich collection of Chinese overseas newspapers, and commemorative publications by Chinese clan associations, Chinese schools, trade unions and religious institutions in Singapore, Malaysia, and Brunei through active solicitation
To be a Regional Southeast Asian Resource Hub

Collection & Content

166K titles, 415K volumes

No. of Titles/Country/Region

No. of Title/Language
To be a Regional Southeast Asian Resource Hub

Access & Discovery

- Accelerate the digitisation efforts on rare, historical, and primary source resources in NUS Libraries, and with external partners & individuals to increase open access to Southeast Asian content in support of global scholarship and public enrichment
To be a Regional Southeast Asian Resource Hub

Access & Discovery

• Facilitate access to digitised Southeast Asian resources through a Discovery Platform that supports both novice and advanced researchers
To be a Regional Southeast Asian Resource Hub

Access & Discovery

• And, also to meet potential demand for data sources on Southeast Asia for digital scholarship research and education
Facilities

2016

i2S CopiBook Cobalt HD
A2 Size Book Scanner for High Resolution Production Scanning

2018

TREVENTUS SCANROBOT® 2.0 MDS
Automatic Book Scanner
Digitisation Process

1. Selection of items
2. Digitisation request made
4. Examine physical condition: OK?
   - Yes: Prepare item for digitisation
   - No: Deferred items
     - Repair items
     - Digital uncompressed image for preservation
     - Archival image storage
5. Digital uncompressed image for preservation
6. Image processing (crop, descreen, color equalise)
7. OCR & QC Digital Image
8. Image compression, file conversion and bookmarking of contents
9. Return item to original state
10. OAI records made available to OAI provider
11. Database
12. Information retrieval
13. Copyright status: Research vs. Open Access vs. Restricted Access vs. Closed Access
14. Upload document images
15. Uploaded metadata
16. Data proofreading and correction
17. Create descriptive metadata
18. Pre-generate item level metadata
19. Establish digitisation standards
20. Scan items
21. Yes: Pre-generate item level metadata
22. No: Deferred items
   - Repair items
   - Digital uncompressed image for preservation
   - Archival image storage
23. Selection of items
Historical Documents on Chinese in Southeast Asia

Digitise available documents of research values and relevant to the historical studies on Chinese in Southeast Asia

- Preservation of fragile primary source materials
- Provide convenient access to researchers and students
Historical Documents on Chinese in Southeast Asia

• 360 titles, 571 volumes

• Primary Resources
  Newspapers, Journals, Commemorative Publications, School Magazines, Textbooks, Manuscripts, Travel & Descriptions, Autobiographies and Private Correspondences

• Secondary Materials
  Important historical writings by Chinese in SEA on their own community, which are out of print and had not been widely circulated before.
• Reflects the studies done on Southeast Asia by Japanese scholars and, to some extent, the knowledge of the Japanese on Southeast Asia in the pre-war period
Biodiversity Library of Southeast Asia

- Digital Library of biodiversity literature on Southeast Asia
- Titles from NUS Libraries and Lee Kong Chian National History Museum (NUS)
- 306 titles, 870 volumes (comprising reports, essays, climatic records, hand drawn plate, correspondences, and data about organisms published in books and journals with some of the materials dating back to the 1830s)
- Average monthly growth rate: 5,000 pages
Digital Gems Portal

A digital gateway that connects novice and advanced researchers with key, rare, historical, and primary source resources at any time and from anywhere.

https://digitalgems.nus.edu.sg/
Collections

- **Biodiversity Library of Southeast...**
  - Digital library of biodiversity literature on Southeast Asia which aims to make th...

- **Singapore Pioneer Architects**
  - The 1st generation of local-trained architects who were educated and...

- **Chinese in Southeast Asia**
  - Historical Documents on the Chinese in Southeast Asia

- **Everyday Life in Singapore**
  - A collection of sketches of common spaces in Singapore between 1941 and 1961...

- **Historical Maps of Singapore**
  - This website provides viewing of 31 sets of maps scanned and georeferenced...

- **History, Culture & Heritage**
  - This collection compiles mostly published books and periodicals, but...

- **Pre-War Japanese Publications on Southeast Asia**

- **SG: A Sense of History**
  - This select bibliography lists materials on the history of Singapore from its...
Commemorating 700 years of history

The Singapore Bicentennial in 2019 marks the 200th anniversary of Sir Stamford Raffles’ arrival in Singapore – a key milestone in our rich and storied history. But our story did not start in 1819. It actually began in 1299.

For over 700 years, we have been open to a diverse flow of people and ideas, and connected to wider geopolitical currents, all of which shaped our evolution. Our history is a rich and expansive one – the journey of an island that has never been constrained by its shores, but has always been made from more.

Each of us is in some way connected to and intertwined with others in this history. 2019 could be the time for us to explore how our past has formed us, discover what this means for our future, and find our way for the future to come.
Provides the viewing of 31 sets of maps scanned and georeferenced by the NUS Department of Geography, with publication years ranging from 1846 to 2010
History, Culture & Heritage of Singapore

- Comprises mostly published books, periodicals, manuscripts and photographs
- Holds fascinating and important items and invites researchers and scholars to mine them to create fresh connections between the present and the past
A Sense of History
A Select Bibliography on the History of Singapore

- Published as a printed bibliography in 1999
- Focus is on the history of Singapore, from its earliest times through the period of British rule interrupted briefly by the Japanese occupation, to independence and thereafter.
- Relaunch the bibliography as a database
- Lists bibliographical records of books, theses, book chapters, and journal articles
Discovery

- Basic Search allows searching into all indexed metadata fields and scanned content (full-text search)
### A. Searching

Within & New Search

### B. Sort

- Title Ascending

### C. Term(s)

- crab

### D. Results

<table>
<thead>
<tr>
<th>Title</th>
<th>Year</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>British Malaya: an account of the origin and progress of British influence in Malaya</td>
<td>1928-</td>
<td>Svetlowith, Frank Athelstan, Sr, 1850-1946</td>
</tr>
<tr>
<td>History of the British possessions in the Indian &amp; Atlantic Oceans, comprising Ceylon, Penang, Malacca, Singapore, the Falkland Islands, St. Helena, ...</td>
<td>1837</td>
<td>Martin, Robert Montgomery, 1803-1868</td>
</tr>
<tr>
<td>Rambles of a naturalist on the shores and waters of the China Sea: being observations in natural history during a voyage to China, Formosa, Borneo, ...</td>
<td>1868-</td>
<td>Collingwood, Cutthbert, 1825-1908</td>
</tr>
<tr>
<td>The crab and frog motion paradigm shift: decoding and deciphering Taipei and Beijing's dialectical politics</td>
<td>2001</td>
<td>Yu, Peter Kien-hung</td>
</tr>
</tbody>
</table>

### E. View

- Items
brining in water for dressing the iron ore and working the water wheel for the Chinese pump were also engaged in the attention of the miner. The Chinese method of bringing in water for the purposes of the mine is simple and economical. The miner may have to make a dam and lead the water by means of a race for some hundreds of yards. He is ignorant of the use of a level, and dispensing with the services of an engineer he makes his calculations entirely with his eye with marvellous accuracy. In laying out the mine due care is taken to provide a suitable site for the washing of the ore, and for the continuation of the watercourse at a suitable level as the mine is opened up. The preliminary operations concluded, the work of removing the overburden is commenced. This is either done by labourers on contract, in which case the owner of the mines takes any profit there may be; or by labourers working the land on tribute, in which case the landowner only receives his tribute, and is not liable to the labourers if the mine does not turn out a financial success. Except in mines worked on tribute, the kārāng, or wash-dirt, is generally raised by labourers on wages. The reason for this is that the kārāng does not lie evenly, the richest pockets often occurring in deep holes or under huge boulders, the removal of which would not pay the labourer working on contract. As the overburden is removed and the workings...
Sharing of Documents

https://digitalgems.nus.edu.sg/persistent/e6a51037-7a78-4ea4-8cac-73b3db7f7bd2#search=%20crab
Advanced Search options include:

- Words to search for: All words, Some of the words
- Fields to search in: All fields, Author, Book Title, Journal Title, Subject, etc.
- Boolean operators: And, Or
- Publication date
- Content type: Book, Journal, Newspaper, etc.
- Collections
- Languages: English, Chinese, Japanese, etc.
Data Sharing

• Supports OAI-PMH for external parties to harvest data from the portal
  • Contributed open access materials to PRRLA (Pacific Rim Research Libraries Alliance) on monthly basis
• Provides API functions for external parties to query and retrieve data from the portal
In the pipeline......

- Digitize and make available historical materials/records on Education in Singapore:
  - Medical Education in Singapore
  - Law Education in Singapore
  - Primary Materials on Chinese Education in Singapore, 1819-1959
In the pipeline……

• Digitize and make available Private Donor Collections:
  • Earl of Cranbrook
  • Edwin Thumboo’s life and works
  • Koh Kim Yam’s life and career
THANK YOU