

Digital Humanities and the Library: research partners?

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Outline

- Background
- DH centres
- Different institutions
- Different models
- Partnership
- Case studies
- Relationship

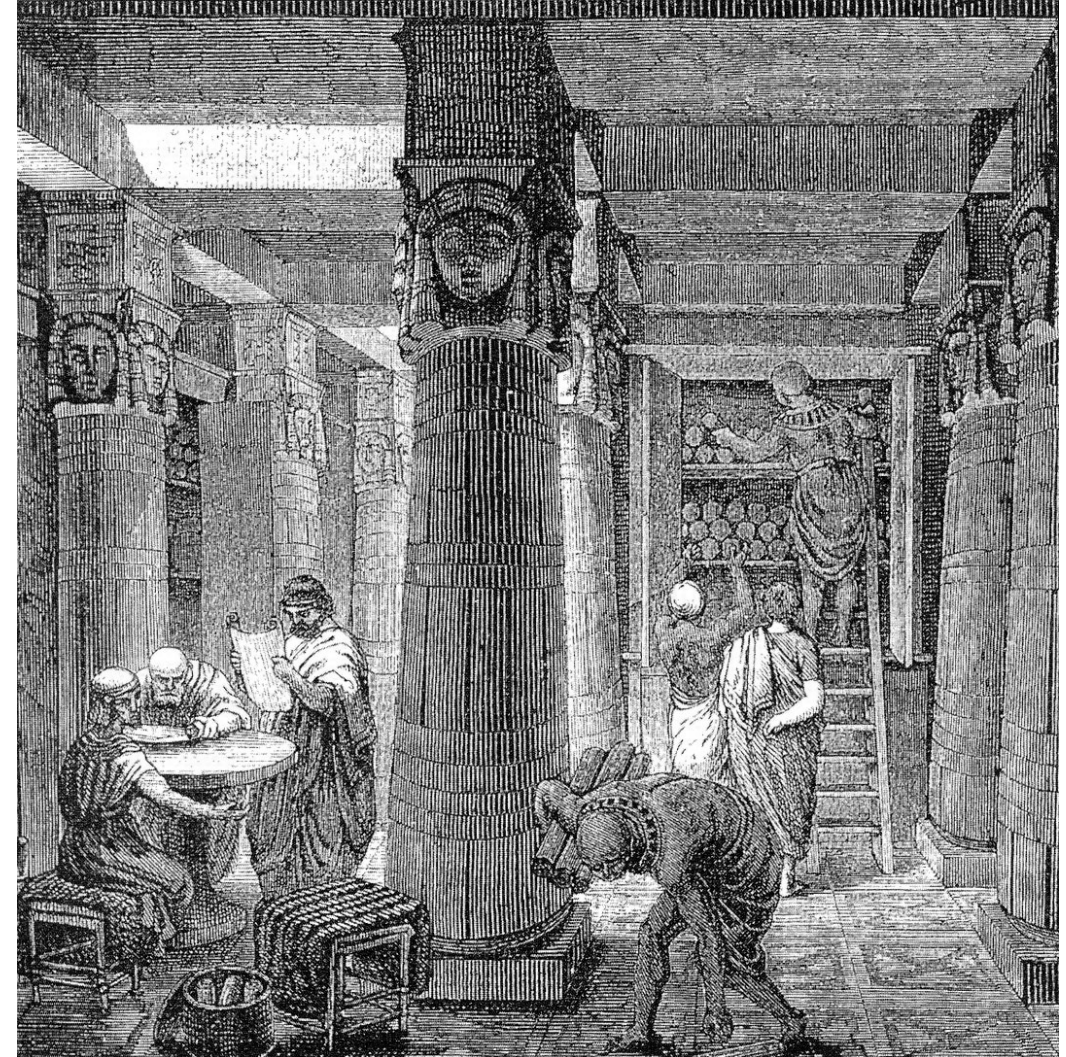


Historical links

- Library of Alexandria
- Library of Pergamum
- Gathering
- Storing
- Conservation
- Archiving

- Preservation of knowledge

- Development of technology and scholarly enquiry



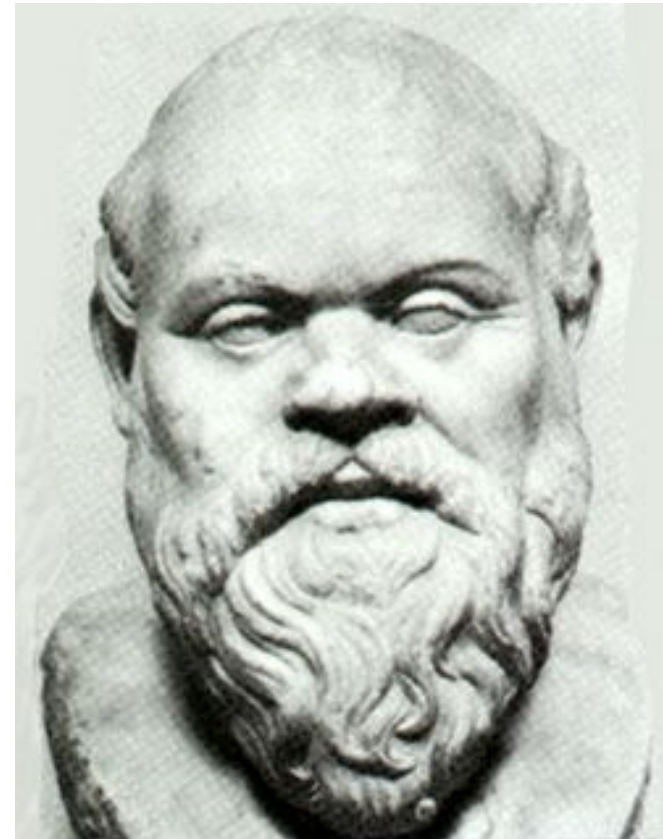
Humanistic Tradition

“Of all scholarly pursuits, Digital Humanities most clearly represents the spirit that animated the ancient foundations at Alexandria, Pergamum, and Memphis, the great monastic libraries of the Middle Ages, and even the first research libraries of the German Enlightenment. It is obsessed with varieties of representation, the organization of knowledge, the technology of communication and dissemination, and the production of useful tools for scholarly inquiry.”

Ramsay, S. (2010, October 8). Care of the soul. Lecture conducted from Emory University.
<http://stephenramsay.us/text/2010/10/08/care-of-the-soul.html>.

Library as repository of knowledge

- How is that knowledge constructed?
- How is that knowledge represented?
- Creating new knowledge or knowledge transfer?
- Does the library facilitate both?



Knowledge Representation

"Knowledge is of two kinds. We know a subject ourselves, or we know where we can find information upon it."

Samuel Johnson (Boswell's *Life of Johnson*, 1791)

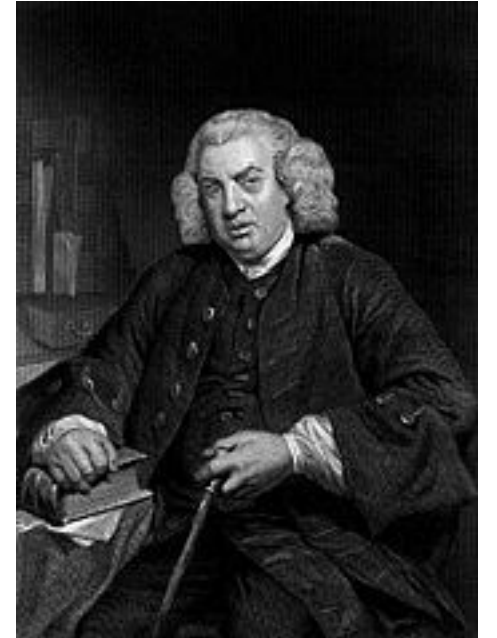


Samuel Johnson by Joshua Reynolds
(source [University of Texas Libraries Portrait Gallery](#) & [Portraits of Humanists](#))

Knowledge Representation

"When we enquire into any subject, the first thing we have to do is to know what books have treated of it. This leads us to look at catalogues, and at the backs of books in libraries."

Samuel Johnson (Boswell's *Life of Johnson*, 1791)



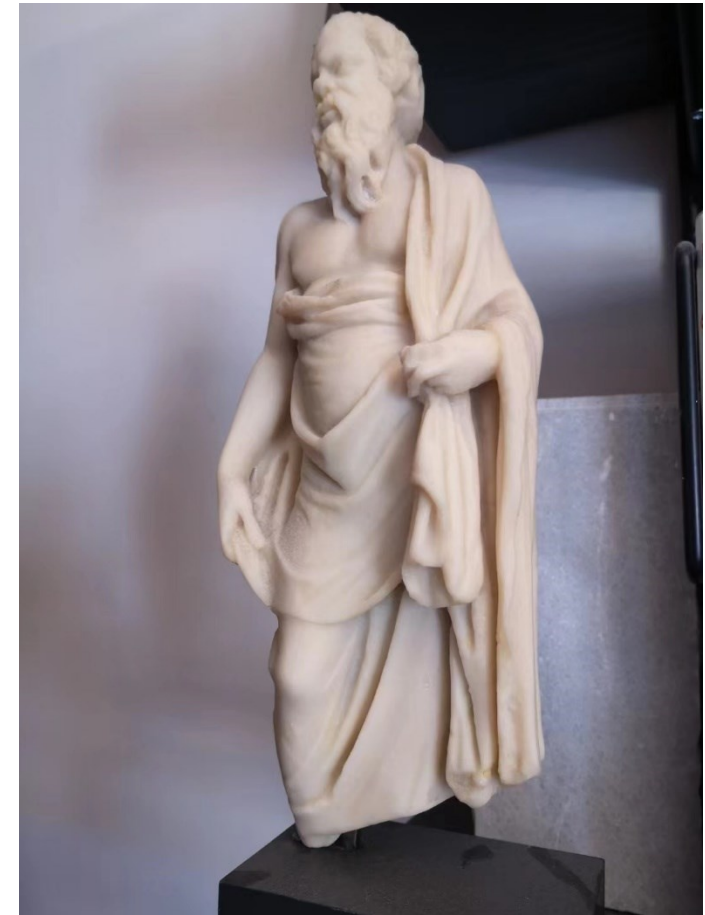
Samuel Johnson by Joshua Reynolds
(source [University of Texas Libraries Portrait Gallery](#) & [Portraits of Humanists](#))

Building knowledge

- Academic work is a series of discussions
- Socratic elenchus (dialogue) & dialectic method
- Knowledge builds on knowledge
- Scholarship builds on scholarship

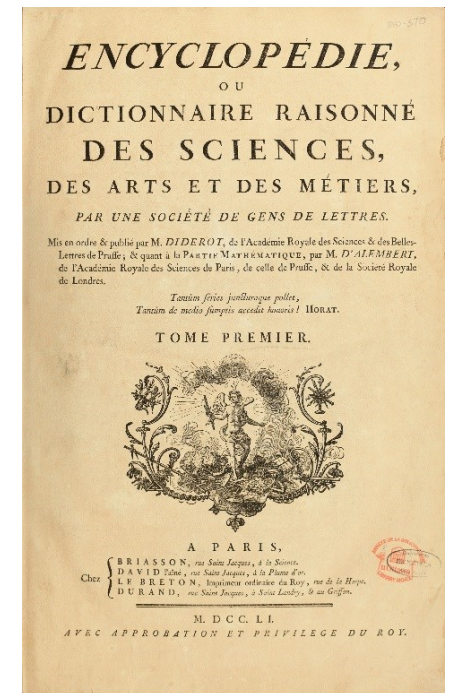
- Without that discussion and sharing of ideas - what happens?

- Think about the role of the library in this relationship



Method

- Literature Review
- Role of libraries facilitating DH research
- Look at symbiotic relationship rather than library as service provider
- Institutional models
- Brief case studies
- General findings



Different models for DH activates

- Different institutions / different models
 - In very general terms:
 - North American tend to arise bottom up
 - European and Asian from top down
- (Fraistat, 2012)

Some variant models

- UK DH centres
 - As departments: Dept of DH at King's College London
 - DH network spanning several departments: University of Glasgow
 - Virtual DH centre that cross departments and faculties: UCLDH
 - Grown and developed from the library but with organisation status of a department: DHI at Sheffield
- USA DH centres
 - Nebraska-Lincoln: a joint initiative of Libraries and Arts and Sciences
 - The Maryland Institute for Technology in the Humanities (MITH) is jointly supported by the College of Arts and Humanities and the Libraries
 - The Scholars Lab, at the University of Virginia: UVA Library's community lab

More variant models

- Canada
 - Alberta: DH research experts across departments but no dedicated centre
 - Victoria: DH Summer Institute and notable practitioners
- All these have DH teaching
- Generates predictable student income
- Demonstrates financial value
- Establishes academic credibility

Mainland China also mixed

- First DH Centre: Wuhan University, Dept Information Management (2011)
- Followed by Nanjing (x2), Peking, Renmin, Shanghai and many others
- Similarities and differences with West
- Mass digitisation and databases
 - But usually by Library Science and Information Studies rather than DH
 - Differences in data leads to different approaches
- Long history of projects but early work but not framed as DH
- Started to use that term after 2011 (Wuhan)
- Similar connection between research and teaching

DH China and Library

- *First DH Forum* hosted at Peking University (PKU) Library 2016 and every year until 2019
- *International Conference on Library and Digital Humanities (2017)* 'To explore the role that libraries played in the development of DH' in China and beyond. The University Town Library of Shenzhen
- 9th Shanghai International Library Forum (SILF 2018), at Shanghai Library, which has a well-established DH research group. DH keynote and track.

In China there is a clear connection with DH research developed from the libraries [1], with the main participants being those at Peking University and Shanghai Library [2].

[1] (Xia & Bao, 2020)

[2] (Wang *et al*, 2020)

Pedagogical links Library & DH

- Close relationship in teaching with
- Object-Based Learning and Special Collections as teaching resources
- Active partnership not service
- Bring together wide ranging and complimentary knowledge and skill sets

“The institutional library sits at the centre of the academic structure and is, as such, well placed to be an interdisciplinary partner and particularly so to make use of their central position to work across disciplinary and institutional boundaries.”

(Evidence Base, 2021)

Sheffield DHI

- Research conducted by Research Libraries UK (RLUK).

Sheffield University Library, where their strategy is to support: **'all research and teaching at the university, including digital scholarship** although there is no dedicated DH team' (Kamposiori, 2017 p.20).

'They do, however, work in partnership with DHI, being involved in projects and particularly ones using their library collections. **This support and participation in project development strengthens the research profile of the institution where the sharing of expertise and domain knowledge fills possible gaps**, such as data preservation, use and re-use of data, and points to the benefits to both parties for such partnerships.'

(Kamposiori, 2017. p.21).

Synergy in job market

Research by iSchools committee on DH curriculum development

- Data harvested from *Digital Humanities Now*

‘The words “digital scholarship” [...] and “librarian” [...] appeared more frequently in academic library positions; this finding suggests that a digital scholarship [...] model is common among libraries developing support for DH and that DH librarians are expected to engage with the development, implementation, and support of DH research and pedagogy.’

(Walsh *et al.*, 2021, p.9)

Careers

- Analyzed 194 unique DH job advertisements announced in *Digital Humanities Now* between January 2010 and December 2019.
- Identified three broad categories of competencies:
 - Digital Stewardship (63%)
 - DH Research Methods/Tools
 - System Administration
 - Software Development competency

Category	Competency	No. (%)
Digital stewardship	Digital content platform	69 (35.6)
	Metadata	57 (29.4)
	Copyright	26 (13.4)
	Digital collection/exhibit	21 (10.8)
	Digitization	20 (10.3)
	Digital media production	19 (9.8)
	Digital preservation practice	18 (9.3)
	Data management	18 (9.3)
	Digital file formats	6 (3.1)
DH research methods and tools	Text analysis/mining	63 (31.8)
	Data visualization	62 (31.2)
	GIS/mapping	49 (20.3)
	Text encoding	28 (14.4)
	Network analysis	23 (11.6)
	Image analysis	13 (6.6)
	Data analysis (quantitative/qualitative)	12 (6.1)
	AR/VR/3D modeling	12 (6.1)
	Web scraping	4 (2.0)
	Data cleaning/manipulation	4 (2.0)
System administration and software development	Scripting language	64 (33.0)
	Website development	59 (30.4)
	Relational database	45 (23.2)
	XML and related standards	20 (10.3)
	Web application framework	18 (9.3)
	Operating system (Unix, Linux, OS)	17 (8.8)
	Version control system	16 (8.2)
	Linked data and semantic web	14 (7.2)
	Usability testing	12 (6.2)

Source: <https://doi.org/10.1002/asi.24535>

Partnership not service

- DH in the library can and should be a source of ideas; a relationship rather than a service and one where librarians help to shape the future of DH research (Muñoz, 2016, p.11).
- Maximise the benefit to both by breaking down the (sometime perceived and sometime actual) institutional divisions between the two.
- Tension between the service orientation of library and research focus
- Much of DH, in the early days of development in the UK and North America, grew out of a background of service computing (Warwick, 2012)
 - E.g. DDH at King's grew from CCH which was spun out of ISS
- Both focus on methodology, accessibility, usability, and of making work available to all through open standards and initiatives, which makes DH a good match for libraries and equal symbiotic partnerships.

Two very brief indicative case studies

- UCL Centre for Digital Humanities
- Shanghai Library, Institute of Scientific and Technical Information of Shanghai



Founded in 2010, the UCL Centre for Digital Humanities (UCLDH) is a cross-faculty research centre, bringing together a vibrant [network of people](#) who [teach](#) and [research](#) in a wide range of disciplines, in the heart of London.



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UCLDH News

[Looking for DH Jobs in London 2022](#)

My postgraduate digital humanities students are working away diligently on their dissertations, but understandably they've also got one eye on what might come next. For most of them, that means a transition into the world of work.

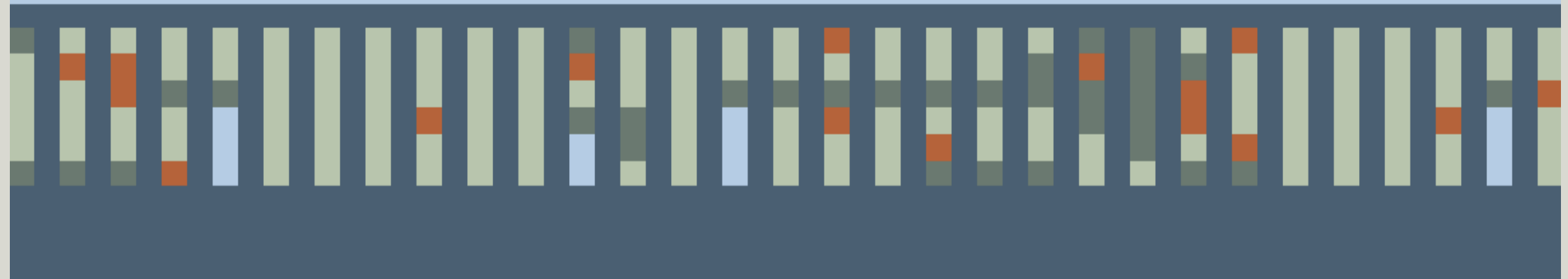
8th July 2022

[Seeking a new UCLDH Associate Director \(ECR\), a voluntary role](#)

The [UCL Centre for Digital Humanities \(UCLDH\)](#) was founded in 2010 as a cross-faculty research centre

Case studies: UCLDH

- Collaborations between UCL Digitisation Suite and UCL [library] Special Collections
- UCL Multimodal Digitisation Suite is physically located within the UCL Special Collections itself
- Through this symbiotic relationship, UCLDH has developed a proven expertise in heritage imaging and UCL is a world leader in applying computational methods to the study of humanities artefacts
- This relationship is supported by UCL Library Special Collections



Collaboration between UCL Digitisation Suite and UCL Special Collections

UCL's Digitisation Suite is a facility for teaching and research, coordinated by UCLDH. It hosts a range of cameras, scanners and other equipment. It is co-located with UCL Special Collections, one of the foremost university collections of manuscripts, archives and rare books in the UK. We have worked together on a number of projects, testing new advanced imaging techniques on real historical objects and using imaging to answer questions posed by librarians and conservators in Special Collections.

[A Music Manuscript](#)

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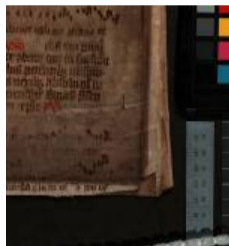
Blog Posts

[Looking for DH Jobs in London 2022](#)

My postgraduate digital humanities students are working away diligently on their dissertations, but understandably they've also got one eye on what might

Collaboration between UCL Digitisation Suite and UCL Special Collections
A Music Manuscript
Book that opens to show an abacus
Vesalius' De Humani Corporis Fabrica

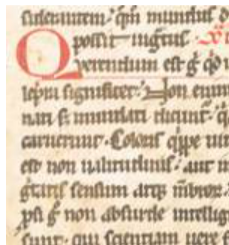
A Music Manuscript



This sheet of medieval music unexpectedly turned out to have been written over another piece of music that was revealed in one of the first tests of our new multispectral imaging system.

The text of the music that appeared under multispectral illumination has been tentatively identified as "Libera Me", a Catholic prayer.

Fragments of medieval manuscripts



UCL acquired a collection of 157 fragments of medieval manuscripts, collected in the early 20th century by Prof Robert Priebsch to be used to teach palaeography. They include examples of musical, religious and legal works mainly from the 10th-14th centuries in different European languages. Many were used as book bindings and have suffered a range of different types of damage. We obtained funding to fund a researcher to examine the collection and carry out some initial

imaging studies. The work was presented at the Digital Humanities 2015 conference.

Imaging the first printed edition of Euclid's Elements



Euclid's Elements was a maths textbook that defined mathematics for 2000 years. Early printers didn't have the technical ability to print mathematical diagrams until Erhardt Ratdolt worked out a method and published the first printed edition in 1482. Special Collections have a copy and were keen to find out whether imaging the depressions in the surface of the paper would give any clues as to how Ratdolt solved the problem. We chose to use optical coherence tomography, an

imaging technique more usually used to image [Cookie settings](#)

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8th July 2022

Seeking a new UCLDH Associate Director (ECR), a voluntary role

The [UCL Centre for Digital Humanities \(UCLDH\)](#) was founded in 2010 as a cross-faculty research centre that brings together a vibrant network of people who teach and research digital humanities in a wide range of disciplines, in the heart of London.

19th May 2022

Penultimate DH Longview Seminar

Join us 5-6:30pm Thursday (19 May 2022) via Zoom for our very own Professor Tim Williams (Archaeology), for the next Digital Humanities Longview seminar, which explores digital scholarship and the Silk Road. Professor Williams' research considers urban archaeology, especially in Roman, Islamic, and Central Asian contexts. He's the Director of a long-running research project at Merv, Turkmenistan, which has been operating since 2001.

18th May 2022

Vision for Art (VISART) Workshop for interdisciplinary



历史人文大数据平台

Demo

Digital Humanities Platform of Shanghai Library

输入关键字搜索



高级
搜索

Shanghai Library

- China's largest metropolitan public and research library
- DH research group within the library
- Open DH platform, freely releases:
 - Basic knowledge bases
 - people, places, times, events etc.
 - Library resources and collections
 - family records, archives, ancient manuscripts, etc.
 - Ontology vocabulary
 - Open DH tools



CHINESE ANCIENT BOOKS UNION CATALOGUE AND EVIDENCE-BASED PLATFORM

<http://gj.library.sh.cn>

This project defines the evidence-based research on ancient books from the digital humanities perspective. There is a trend in humanities, history, and social science research that the tradition of using the ancient catalogue and books as research evidence based on personal experience to collect and collate materials will be changed into more reliance on data, information, and facts contained in a vast amount of documents, statistics, analysis, and reasoning based on these data, information and facts. The platform strides to achieve a global bibliographic control of Chinese ancient books and bibliographies available on the Internet and explore how to deploy digital humanities methods and techniques in specific research areas such as ancient book edition, collation, classification, and human history.

UNION CATALOGUE OF ANCIENT BOOKS

The Union Catalogue of Ancient Books covers collections housed in many libraries. These collections have not only the existing ancient books, but also 12 kinds of missing ancient books that are recorded in historical books, official revisions, collections, private directories, and modern ancient books. This union catalog expanded the ancient bibliography and structured as semantic data that are aggregated from different sources.



The Berkeley University of California East Asia Library, Harvard University Yenching Library and the Macau University Library have partnered with Shanghai Library to provide bibliographic data and images of full-text for ancient books for browsing through the Union Catalogue of Ancient Books. The Union Catalogue platform also provides independent catalogue sites for organizations and allows site administrators to set personalized site homepage and full-text image browsing permissions, and upload and/or modify data.

SERVICES FOR EVIDENCE-BASED RESEARCH ON ANCIENT BOOKS:

Study different editions of the same ancient books in different catalogues by clustering them by source, time, and other criteria. Compare analyze different editions of the same ancient works. Explore and analyze similarities and differences between the abstracts and comments made for the same ancient books in different editions. Conduct statistical analysis of ancient books by different responsibility roles of people.



CATALOGUE FOR ANCIENT BOOKS

The Catalogue displays individual catalogues that were published in ancient time and has the capability for full-text search. Currently the Catalogue covers 14 types of book catalogues, including: Han Shu Yi Wen Zhi, Sui Shu Jing Ji Zhi, Chongwen Catalogue, Jun Zhai Du Shu Zhi, Si Ku Quan Shu Zong Mu Ti Yao, Lv Ting Zhi Jian Chuan Ben Shu Mu, Tie Qin Tong Jian Lou Cang Shu Mu Lu and so on.



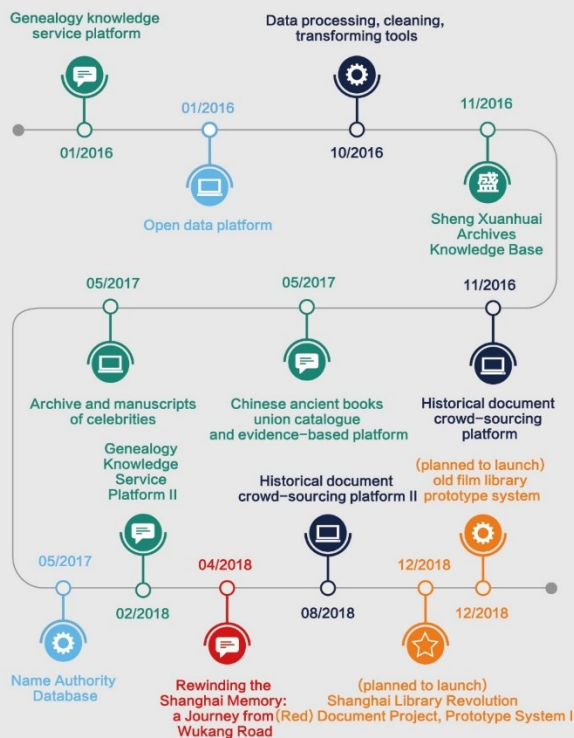
INTRODUCTION AND TIMELINE

Digital Humanities emerged about a decade ago as a research and practice field. It has since brought about a paradigm shift in humanities research and promises a broader perspective for expanding and innovating future digital library services.

Since 2014, Shanghai Library has invested a significant amount of resources to explore ways and methods in initiating digital humanities projects in libraries. Using the genealogy special collection in Shanghai Library as the starting point, the digital humanities project team applied cutting-edge Semantic Web technologies such as Ontologies, Linked Data, and knowledge Graph to aggregate metadata records, research results produced by subject experts, and related Web resources. These data were reorganized through ontological modeling, which integrated architectures, people, places, time, events, objects, and literature together to build a humanities research data infrastructure. These projects led to a platform capable of providing diverse services for researchers, general public, and community organizations and groups. The Linked Data sets generated from these projects are now part of Shanghai Library's linked open data services. The platform also supports open data application development contests and promotes library resources while soliciting ideas from the communities.

In the future, we will continue to improve the digital humanities service system and data infrastructure, build a digital humanities service platform that can cover more document types. The revolution (Red) literature platform and the old movie knowledge graph will be launched in the near future.

We hope that some of the projects we initiated can attract and encourage more libraries to join the digital humanities data infrastructure building, so that libraries can continue to play the role of knowledge infrastructure in the digital age.



From Digital Library to Digital Humanities —The Practice of Shanghai Library



爱新觉罗
aixinjueluo
792种 先祖名人1366
始于1644

艾 ai
14种 先祖名人20
始于1644

安 an
14种



GENEALOGY KNOWLEDGE SERVICE PLATFORM

<http://japu.library.sh.cn>

The Shanghai Library uses digital humanities methods and Linked Data technology to reorganize, enrich, and format the catalog and content of the Chinese Genealogy Catalogue and the genealogy collection of Shanghai Library. The goal is to transform traditional library service of literature searching to data service and knowledge service.

UNION CATALOGUE

The platform displays bibliographic data from 597 organizations' genealogy catalogues around the world. It supports simple search, advanced search, and map search. The search results can be browsed by multi-dimensional facets, including authors, places, time, editions, as well as data visualization services such as relationship visualization, spatial-temporal visualization, and statistical analysis services.



OPEN DATA

Shanghai Library provides open data services for machines while providing knowledge service for human users. The data are open not only to the library community but also to other organizations and individuals. Among the data open to the world are all bibliographic data and authority data. Other data such as scanned images of full-text family rules and selected celebrity family lineage can be browsed and searched.



DISPLAY OF THE KNOWLEDGE ARCHITECTURE

When creating bibliographic data for documents, we emphasize on the knowledge, facts, and data surrounding people, places, time, and events in document content and explore the best way to display and organize the content for family rules and celebrity family lineages, so that they can be visualized in a structured way.



USER PARTICIPATION

The platform provides functions such as online reading, online editing and uploading genealogies, etc. It also enables users to identify individuals and their basic information in the open family lineages and visualize the results. This platform also supports donating genealogies by uploading the digital version and encourages the public to participate in knowledge innovation.

AWARDS

- "Creativity Award", the 12th Digital Library Advanced Seminar on Frontier Issues
- First Prize, 2015 National Digital Library Promotion Project Digital Library Construction and Service Case Selection.
- Finalist 5, the 4th LODLAM International Summit Forum Case Challenge.
- Second Prize, IFLA BibLibre International Library Marketing Award.



building photos



Ba Jin's former residence , No. 113 Wukang Road



Zhou Xuan's former residence , No. 1-5, Lane 391, Wukang Road



Former Residence of Huang Xing , No. 393 Wukang Road



Tang Shaoyi's former residence , No. 1, Lane 40, Wukang Road

INTRODUCTION

FIGURE

EVENT

MATERIAL

Built in 1916, it is a four-story Spanish-style building with a brick and wood structure. In the early summer of 1943, China's earliest amphibious star and a pioneer in the pop music scene, "Golden Voice" Zhou Xuan and his adoptive mother moved into No. 1, Lane 391, Wukang Road, and lived in a house on the third floor. Previously, due to the current situation, Zhou Xuan had been out of film for more than a year. At the same time, Zhou Xuan joined the China Film United Co., Ltd. hosted by Zhang Shankun to make a comeback. She starred in four films, "Fisher Girl", "Luanfeng and Ming", "Dream of Red Mansions" and "Phoenix Flying", and recorded all the episodes of these films for EMI Records. In the spring of 1946, Zhou Xuan went to Hong Kong to make a film at the invitation of the Hong Kong Great China Film Company, and left the Wukang Road apartment where he had lived for more than three years.

Voice Introduction

mandarin



Shanhainese

street panorama



Conclusion

- Historic links
- Grown in different ways
- Shared organisation of knowledge
- Scholarship builds on scholarship
- Different institutional models
- Complimentary skill sets
- Closer relationship in China and North America List main points
- Symbiotic relationship
- Bring benefits to both

Some concluding thoughts

- The research library
- Digital scholarship
- A common goal of knowledge discovery
- Need for cooperation and collaboration

Print no longer primary medium for knowledge production and dissemination





Student space at BNUZH.



UCL Student Centre wins architecture prize
<https://www.ucl.ac.uk/news/2019/nov/ucl-student-centre-wins-architecture-prize>



Library computer cluster at BNUZH

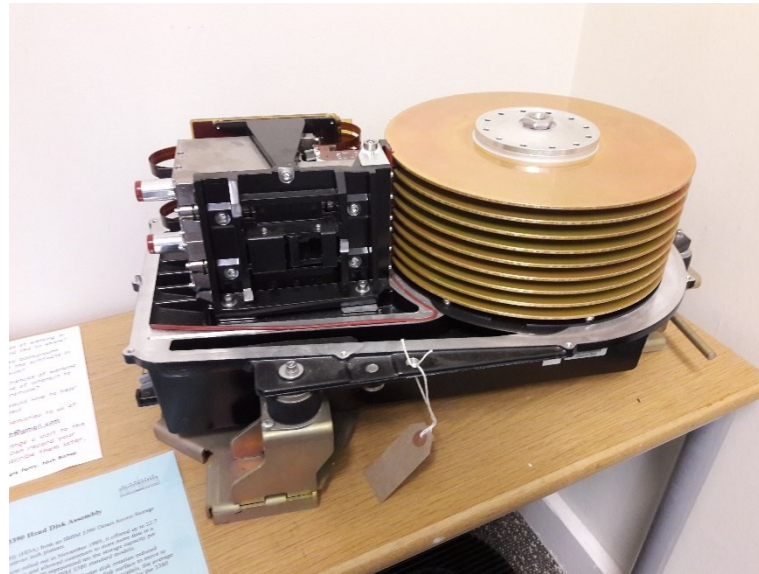


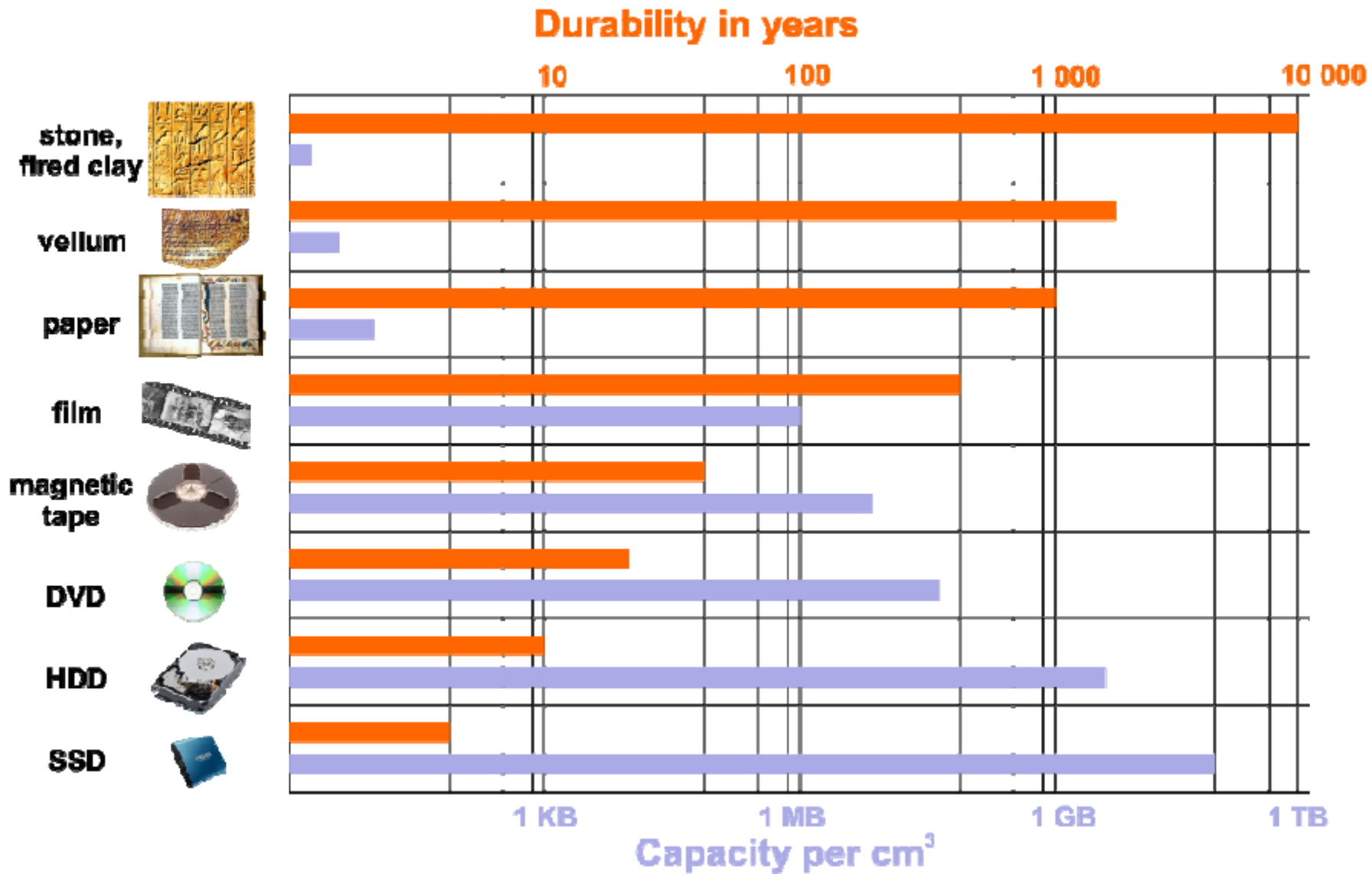
Legacy data



Long-term preservation?

- Accessibility and usability of material over time
- How durable is digital?
- Compare life span
 - Stone
 - Vellum
 - Paper
- Copyright
 - Intellectual Property Rights
 - Tracing the rights holders
 - Orphan works





Durability vs. capacity (illustration: MOM).

Source: [UNESCO MoW SCEaR Newsletter 2022/1 \(June\)](#)

Durability

- Electronic media is especially vulnerable
 - Long term preservation
 - Maintain accessibility and usability
 - Hardware and software failure
- Both libraries and storage servers are subject to natural forces
 - Hurricanes Katrina (2005) and Harvey (2017) in USA
 - Fire – National Museum of Brazil (2018)
- Libraries
 - Retreating Roman Emperors (Alexandria 48 BCE)
 - Ideological intervention
 - Sarajevo (1992)
 - Timbuktu (2013)
 - Mosul (2015)

NEWS

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Why is the UK still printing its laws on vellum?

© 15 February 2016



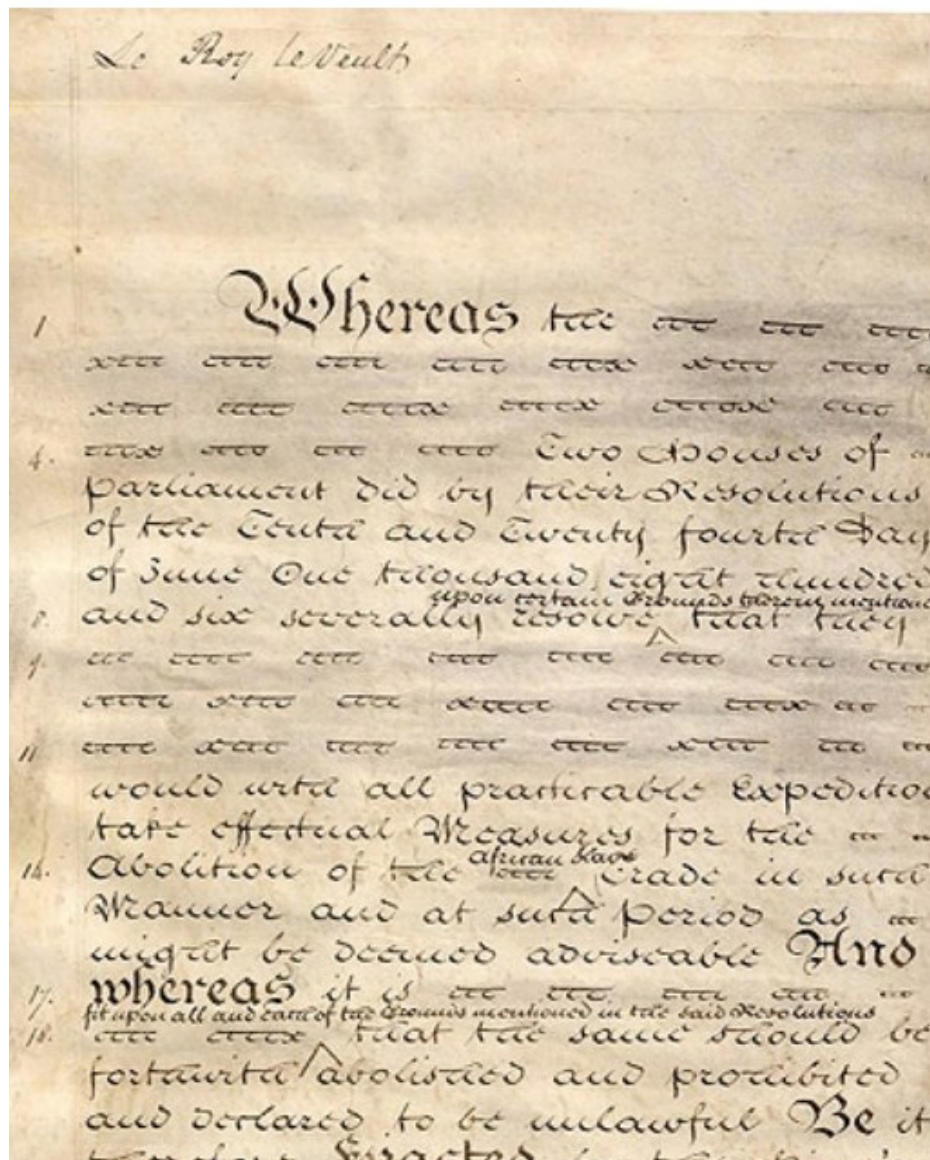
UK PARLIAMENT/JESSICA TAYLOR

The UK's law is on scrolls. In a tower

After a reprieve, the UK is to continue printing and storing its laws on vellum, made from calf or goat-skin. But shouldn't these traditions give way to digital storage, asks Chris Stokel-Walker.

Vellum: printing record copies of public Acts

By Richard Kelly



Inside:

1. Printing record copies of public Acts
2. Establishing the practice of printing on vellum
3. Proposals to change the practice
4. Decision to change practice
5. Further information

Acts now printed on archival paper, with front and back vellum covers.

<https://commonslibrary.parliament.uk/research-briefings/cbp-7451/>

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