The dreams and realities of DH
A perspective from Singapore

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OVERVIEW

- DH development in Singapore
- Challenges faced in Singapore
- How do SG academics and librarians cope with the challenges?
- Some thoughts on developing and sustaining DH programs
The state of DH in Singapore

Wide range of projects, by many different kinds of researchers

“Narrow view” of DH as “tools and archives” (Golumbia 2013), rather than engagement with DH as a critical space

Discipline-specific (geography, archeology, literature) rather than the field of DH

Label used strategically and retroactively
But... do we actually need to think of DH as a field?
Advantages of DH as a field

- Shared concerns
- Fruitful epistemological and technical dialogues
- Great community and space
- Advocacy for how we conduct research, evaluation and teaching
- Larger contribution to society on how digital tools are changing the world
- Reusable tools, transferable experiences
- Better infrastructure leads to better research
A “proto-organization”
digitalhumanities.sg
DH Initiators in Singapore

Libraries & memory institutions

Individual researchers (via specific questions or funding)

Many projects have migrated to Singapore but others are home-grown.

Very few incubators, DH-labelled research positions and events (but this is changing)
Institutional projects
National Library Board

OneSearch

http://search.nlb.gov.sg/
NLB projects

Music SG

http://eresources.nlb.gov.sg/music/

Tamil Digital Heritage Collection

NUS Digital Scholarship

National University of Singapore

- Lab
- Portal (http://libds.nus.edu.sg)
SMU

Singapore Management University

Living Analytics Research Center (LARC)

Computational Social Science
Singapore University of Technology and Design

Only university (so far) to offer a minor in DH

Digital Humanities Minor

Overview

The Digital Humanities (DH) minor equips students with skills to develop and apply digital methods in the study of the arts and humanities. The application of computational techniques in the arts and humanities makes research more efficient and facilitates research that would not be possible using traditional methods.

Students will acquire three main skills:

1. Archiving
2. Analysis
3. Visualisation

These skills will help to enhance the students’ core work in the humanities and arts, centred on interpretation, reasoning and communication.

The minor targets students who would like to pursue HASS subjects in which they can directly and demonstrably apply the knowledge gained in their Pillar subjects in their electives. This minor also targets students who are interested in the humanities and arts, and who would like to pursue these subjects in greater depth.

Curriculum Structure

1 Digital Humanities Core Subject

- Digital Humanities Primer: Methods and Models: This subject introduces students to tools and techniques used in the three domains of data archiving, analysis and visualisation.
Migrated to Singapore
Engineering
Historical Memory

Andrea Nanetti

“Visualize high volumes of data through maps, timelines, tag clouds, and/or interconnected graphs on different scales.”
Drugs across Asia examines the distribution of drug knowledge across multiple genres, sources, periods, and regions of China as part of an ongoing investigation into pre-modern plural medicine (Stanley-Barker, I. Ho, 2015). The tools it produces allow for broader applications, enabling researchers to track any kind of knowledge that can be identified by a representative vocabulary set. In this case, 12,000 traditional Chinese drug terms. Using new methods of post-search-classification (PSC), the engine called Docusky developed by National Taiwan University in collaboration with the Max Planck Institute for the History of Science, refines these term distributions according to detailed bibliographic meta-data. Researchers can sort search results by time, genre, author and geographic site of production. They can then use a suite of online tools for more refined study, including MARKUS, Palladio and DocuGIS. MARKUS, based in Leiden University, draws on multiple online geographical and biographical historical databases, such as Harvard’s China Historical GIS (CHGIS) and China Biographical Database (CBBD), as well as Dharma Drum’s Place and Name authority databases. Using Stanford’s Ptolemy, proximity between trees can be visualized from custom result outputs generated in Docusky. In DocuGIS, locations in marked-up texts can be rendered as geographical maps with dynastic map underlays, produced by Academia Sinica. This suite intersects the cutting edge of digital sinology, clustering together techniques and tools that have been developed around the world within a closely coordinated digital ecology, to allow for a new generation of analyses of pre-modern source texts. By November 2015, this project will post the entire Buddhist and Daoist canons, and nearly 200 chapters of marked texts from the Six Dynasties (220–589 CE).
Homegrown projects
Asian Shakespeare Intercultural Archive
http://a-s-i-a-web.org/
Singapore Historical GIS

http://shgis.nus.edu.sg/
Southeast Asia in the Ming Shi Lu (明實錄)

40,000 pages of unpunctuated Classical Chinese
Contemporary Wayang Archive (http://cwa-web.org)

‘Shadow-puppetry’, one of the most important theatre traditions of Southeast Asia
Biomechanical Analysis of Javanese Dance

Kalang-kinantang are proud and strong characters. The arms are moved in asymmetrical patterns and contrasting lines and faces almost directly forward (Soedarsono, 1985, 228). Examples from Sendratari Ramayana include Rahwana (the ogre king, who is the enemy of Rama).

https://villaorlando.github.io/dance/html/
Sengkuni

[full description]

Terms of address: Path
Type: Human
Origin: India

Alternative names: Herya Suman, Gandaraputra, Suwalaputra, Trigantalpati, Sakuri

Father: Sowala

Degree: 112
Weighted degree: 471
Eccentricity: 2
Closeness centrality: 0.81
Betweenness centrality: 402.05
Clustering: 0.35

The non-directed network visualization represents co-occurrences of characters in the scene-by-scene plot descriptions. The nodes (circles) indicate the different characters. Green nodes are Javanese in origin and pink ones are also found in the Indian versions of the stories. The size of the nodes corresponds to their degree (larger nodes have a higher number of connections). An edge (line) between two characters means they are present in the same scene. The thickness of the edges represents the number of times two characters appear together in the same scene. Clicking on a character's node reveals more information.

https://villaorlado.github.io/wayangnetworks/html/
Perform Contemporary Tradition

Digital portal on Japanese theatre
Other heritage projects

Hindustani music

Digital Intangible Heritage of Asia

Languages of Southeast Asia (AILCA 2.0 – The Archive of Indigenous Languages and Cultures of Asia)
Literature projects

Singapore Literature in English

Digital analysis of epigraph quotations
DH in Singapore and the region
Place in the region

The intellectual and cultural histories of Singapore are closely intertwined with other places in Asia.
Events

digitalhumanities.sg events around metadata, tools and copyright

Pacific Neighborhood Consortium 2019 in Singapore

SUTD DH seminar in 2019
Challenges and future directions
Challenges

Funding

- Funding cycles
- Types of things being funded

Interdisciplinary discussion

Participation in global DH forums and publications

New stages of institutional support
The history of DH so far has been organic

Will the next stage be driven by institutions?
Opportunities

Tech savvy student population
Multilingual, multicultural communities
Lots of energy
Strong connections to East and Southeast Asia
Questions for the future...
How to increase cooperation?

More international and regional participation

Institutional cooperation and funding

DH2021 Tokyo: Responding to Asian Diversity
What kind of DH do we want?

Digital interactive scholarship, freely accessible through internet portals.

Quantitative analysis of culture, communicated mostly through conventional print publications, with datasets for download.

This requires a good sustainability plan.

The infrastructure for this is already in place.
Sustainability

Long term storage (institutions can play a major role here).

- How to make sure data is available 1,000 years into the future? (The Long Now Foundation, http://longnow.org)

Minimal computing? (http://go-dh.github.io/mincomp)

- Should we explore minimal solutions even when funding and infrastructure are available?

Training

Community-building
Recommendations

Seed projects and databases

Good data sharing

Sustainability policies

Community as infrastructure

Encourage librarians and researchers to work together: old divisions of labor don’t make sense in the DH
Thank you

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