EXPERIMENTING WITH DIGITAL SCHOLARSHIP SERVICE AT THE CHINESE UNIVERSITY OF HONG KONG LIBRARY – CHALLENGES AND FUTURE DIRECTIONS

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Micah Vandegrift:

“Stop asking if the library has a role, or what it is, and start getting involved in digital projects that are already happening. Advocate for new expanded roles and responsibilities to be able to do this. Become producers / creators in collaboration with scholars rather than servants to them.”

## CUHK LIBRARY’S RESPONSE TO THE GLOBAL CALLING

### Strategic themes and objectives

<table>
<thead>
<tr>
<th>1.</th>
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<th>5.</th>
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<tbody>
<tr>
<td>Realising the potential of our collections</td>
<td>Transforming our research support</td>
<td>Supporting the student journey</td>
<td>Sustainability</td>
<td>Working in partnership</td>
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<tr>
<td>1.1 Build our research collections to fit with University priorities</td>
<td>2.1 Create specialist services, reflecting the University’s research priorities</td>
<td>3.1 Enhance our students information and digital literacy skills</td>
<td>4.1 Progress towards environmental sustainability wherever possible</td>
<td>5.1 Work with faculty to understand their Library needs throughout the research life cycle</td>
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<td>1.2 Promote Special Collections as a source for primary research</td>
<td>2.2 Build capacity in ULS to support e-research</td>
<td>3.2 Continue to develop innovative, technology-rich study spaces</td>
<td>4.2 Deliver and demonstrate value and fiscal responsibility</td>
<td>5.2 Engage with students and faculty to identify how the Library can best support the student journey</td>
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<td>1.3 Ensure students have access to their core learning materials</td>
<td>2.3 Lead discussion on changes in scholarly communications</td>
<td>3.3 Deliver seamless services that encourage independence.</td>
<td>4.3 Optimise collection space, storage and preservation</td>
<td>5.3 Deepen collaboration with our internal partners, and with libraries and consortia locally, regionally and beyond.</td>
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<td>1.4 Facilitate discovery and easy access to collections and resources</td>
<td>2.4 Grow Library services to research postgraduate students</td>
<td>3.4 Cultivate students by offering project work, volunteering, internships and employment</td>
<td>4.4 Secure the organisational structure and staff skills needed to deliver the ULS mission and vision</td>
<td>5.4 Develop a supportive Library working environment</td>
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CUHK Library Strategic plan 2013-2016

Partnering for Success
ESTABLISHMENT OF A NEW TEAM – RESEARCH SUPPORT & DIGITAL INITIATIVES

Head of Research Support & Digital Initiatives (RSDI)

- Research Services
  - Library Assistant
  - Scholarly Communication Services
  - Project Coordinator
  - Research Assistant (Temporary)

- Digital Scholarship Services
  - Research Assistant (Temporary)

- Digital Services
  - Digital Repository Specialist
  - Digitization Projects Coordinator
  - Digital Repository Support

- Digital Technologies
  - Programmer
<table>
<thead>
<tr>
<th>Mission</th>
<th>Strategy</th>
<th>Action Plans</th>
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<tr>
<td>• Promote and support digital scholarship research through its entire research life-cycle</td>
<td>• Foster collaborative partnership with Faculty and researchers</td>
<td>• Build a Digital Scholarship lab with a package of services, collaborative space, tools, and projects</td>
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DIGITAL SCHOLARSHIP LAB

- Location: G/F, University Library
- Open: 17 March, 2016
- Floor Area: ~ 180m²
- Seating Capacity: ~ 75

Previous CUHK Repository & CUHK Thesis on G/F
DIGITAL SCHOLARSHIP LAB

A technology-rich space to support:
• digital information visualization for research projects;
• collaborative research
• application of digital scholarship software & tools for research data analysis, processing and online display
CORE SPACE DESIGN PRINCIPLES

• A technology-rich hub for scholars to immerse in their research

• Able to support multitude of research-related activities on personal and collaborative basis, in particular, digital scholarship research

• All equipment should be easy to use to encourage self-service

• Must have flexible setting to fully utilize the space and accommodate different needs

• Be sustainable in the long-term
DIGITAL DISPLAY WALL

• 12 nos. of 55-inch LED TVs made into a 5m wide x 2m high video wall
• Extremely high resolution of 24,883,200 pixels
• From 1-12 input sources with different layout choices to allow comparison of data or information from different sources to facilitate research discussion and collaboration
• Best for visualization of large images, exploring big data
• Support of various format of inputs allows users to bring their own mobile devices for connection
FLEXIBILITY AND EASE OF USE

• Easy to control input and layout by control panel installed in the Lab to facilitate self-service

A 80” touch screen LED TV that can be linked to the digital display wall
Tablets and notebooks available for lending upon request
Movable tables and chairs for easy configurations
Power and AV outlets are available on table top for displaying users’ screen to the display wall
The Visualization Room can be used separately / simultaneously with Seminar Room by using partition between the two rooms
Writable Partitions facing Visualization Room have white board for idea generation
SOFTWARE & TOOLS

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<th>Software in PCs</th>
<th>Software in iMacs</th>
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<td>ArcGIS Teaching &amp; Research Lab Kit - Geographic information system (GIS) software for mapping &amp; geospatial data analysis</td>
<td>Adobe Creative Cloud - Includes Photoshop, Dreamweaver, Illustrator, Premiere Pro and all the available apps in the package</td>
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<td>Cytoscape - For visualising molecular interaction networks and biological pathways</td>
<td>Google Earth Pro</td>
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<td>NVivo - For qualitative research analysis (iMac No. 1 &amp; 2)</td>
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<td>Google Earth Pro</td>
<td>MS Office</td>
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<td>GRASS GIS - GIS software</td>
<td>R - For statistical computing and graphics</td>
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<td>IBM SPSS - For statistical analysis</td>
<td>TreeAge Pro Healthcare - For visualizing data by creating and analyzing decision trees</td>
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<td>MALLET - For statistical natural language processing and different machine learning application to text</td>
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The following are online tools available in workstations:

- Omeka - For online exhibitions
- T.PEN (The Transcription for Paleographical and Editorial Notation) - Allow users to contribute images of manuscripts and transcription
- Voyant Tools - A web-based reading and analysis environment for digital texts
- MARKUS - For tagging personal names, place names, temporal references, and bureaucratic offices automatically in classical Chinese files uploaded by users
SPACE FOR COLLABORATIVE RESEARCH

- Easily configured tables for discussion
- A multi-purpose photocopier for printing, photocopying and scanning
- A small help desk for assistance in the use of the lab / equipment
- A small consultation room to provide advice on digital scholarship projects
STAFFING FOR THE SERVICES

• Start from small to ensure sustainability

• More staff might be added when the service grows

• One Digital Scholarship Librarian that comes to the team through internal transfer after studying staff skills
  • A graduate in Geography with a Postgraduate Diploma in Applied Geoinformatics
  • External recruitment encountered great difficulties

• One Research Assistant (project-based) (temporary) to assist with digital scholarship research projects

• Other services such as copyright, digitization, technological support are supported by other professionals in the team
OPERATIONAL MODE

Mainly Self-Service

- Briefing on the use of the lab prior to the booking; technical support might be provided on request
- Help Desk available for offering assistance in the use of the facilities
- IP Phone connected to RSDI Office directly for emergency assistance

Opening Hours

- Mon – Fri: 9:00 am – 5:30 p.m.
- Saturdays, Sundays, public holidays closed
- Free to all users if the lab is not reserved

Reservation for Activities

- Online reservation
- Restricted to Current academic, research & Administrative staff and postgraduates
SERVICES

• Support for Digital Scholarship projects
  • Sourcing of research data and information
  • Consultation
  • Project Planning and Management
  • Technology Support

• Training Workshops & Seminars

• Consultation on Digital Scholarship research

• Data services

• Provide learning resources

(http://lib.cuhk.edu.hk/en/research/digital-scholarship/services)
OUTREACHING & PROMOTION (1)

Grand opening ceremony of the Digital Scholarship Lab

Frequent outreach to faculty

- Attend their internal meetings in which Faculty members will attend
- Tailored-made presentations and briefings on specific services
- Proactively liaised with department organizers and offered the lab for their research seminars or conferences
- Meet with individual faculty at the Lab
OUTREACHING & PROMOTION (2)

Creation of promotion materials: pamphlets, newsletters

Use of social media

- Research Blog (http://researchblog-cuhk-lib.blogspot.hk/)
- Twitter @cuhklibresearch
- Library Facebook (https://www.facebook.com/CUHKLibraries)
DIGITAL SCHOLARSHIP SYMPOSIUM
(MARCH 31, 2017)

- Organized by the Library
- Academics from CUHK and other institutions are invited to share their digital scholarship research and explore the roles of the Library
A total of 46 events and activities were held for about 1400 participants at the lab: research seminars, conferences, classes, tutorials, and other research-related activities.

A total of 26 tours were provided to about 300 visitors including Faculty.

A total of 29 library workshops were organized.

Partnered with Faculty for some digital scholarship projects.
FLIP CLASSROOM FOR TUTORIAL CLASSES
STUDENTS LEARNING TO USE 3D GLASSES TO DESIGN A COMPUTER GAME FOR A SPECIFIC COURSE
VISUALIZE MUSIC ON THE VISUALIZATION WALL
CONFERENCES MAKING USE OF VISUALIZATION WALL (1)
CONFERENCES MAKING USE OF VISUALIZATION WALL (2)
PUBLIC TALKS AND RESEARCH PRESENTATIONS
• Archaeological Sites Mapping Database

• To make use of GIS to display information on unearthed Nao (銃) in the early Bronze Age China on digital maps of China

• A map on website to display all the locations to give an overall view

• Users can click on the points to get the information related to the site, i.e. description about the unearthed nao, reference citation, original quotes for the location and description
**CHALLENGES**

**Nurture research work at the Digital Scholarship Lab**
- Two mini-surveys found that most users are undergraduates that use the lab mainly for the new computers

**Engagement with Faculty**
- Digital scholarship research at CUHK is still a silo, library is evolving to find its own roles

**Staffing**
- Great difficulty in recruiting the right staff

**Capacity building for staff**
- Staff needs to acquire the new skills of digital scholarship services
Two mini-surveys were conducted on the Lab users in Dec 2016 (43 users responded) and February 2017 (40 users responded).

More than half are undergraduates.
TWO MINI-SURVEYS FINDINGS (2)

- Most users used the lab for general use of the computers and revision / doing assignments
The majority used general software like MS Office and Adobe Creative Cloud.
Do we grow the service or respond to the demands for the service?

No more “Build it, they will come”.

RESEARCHERS’ NEED

‘Scholars doing digital work require kinds of support that many more traditionally oriented humanists do not: access to technical resources for both their teaching and scholarship, as well as help maintaining those resources. They need access to collaborators--to other scholars in the humanities and to a range of developers, designers, project managers, and librarians--to produce and preserve their projects. How many programs hiring young digital humanists are prepared to provide them with those resources?’

Kathleen Fitzpatrick, Chronicle of Higher Education 9/30/11
Researchers, especially in the humanities, may still think it is important for their libraries to have as many books and journals as possible, and some of them may prefer the print format. But they are realizing that many of these materials are now available electronically or via ILL/document delivery. It is more critical for researchers to have access to primary resources for their research. Research libraries are realizing they have to play a pivotal role in access to primary resources if they want to stay relevant in academic research in the current information-rich environment.

(Source: http://crln.acrl.org/content/71/9/484.full)
WHERE ARE DHERS?

• Stephen Ramsay, “in order for the library to do digital humanities it must embrace the charge to become ‘a bunch of people who had found each other through various means and who were committed to the bold and revolutionary project of taking to one another about their common interests outside the four walls of the library.’”

• Bethany Nowviskie, ““Librarians” working in and across digital areas, who have been called many things over time, need to proudly identify themselves as DHers, and fully expect to be regarded as such by peers, colleagues, faculty and administrators, and let the broad work they do engage with that community.”

Source: http://www.inthelibrarywiththeleadpipe.org/2012/dhandthelib/
Successful DHers require:

Attitude to innovate
boldness to take calculated risk
quick action
bravery to experiment
courage to face failure, move on and
grow your services in trial and error
REFLECTIONS & FUTURE DIRECTIONS (1)

• It is a right approach to support digital scholarship research with a package of services, collaborative space, tools and resources.

• It is a right approach to foster Faculty-Librarian partnership, though the process takes time

• First year laid the foundation on space and initial connection building with Faculty

• The Lab helps to reposition the Library’s commitment to support digital scholarship research
REFLECTIONS & FUTURE DIRECTIONS (2)

- More roles can be assumed by the Library to satisfy the needs of digital scholarship researchers
- Continue to recruit, re-skill and upskill library staff -
- The first postdoctoral fellow outside of US will assume duty on August 1, 2017