Digital Scholarship: Partnering on New Forms of Research, Teaching & Learning

Joan K. Lippincott, CNI
ASERL Membership Meeting – Miami, FL
November 29, 2017
Coalition for Networked Information (CNI)

- Founded in 1990
- Joint program of ARL and EDUCAUSE
- Focus on content, organizations, technologies, and policy in the Internet environment – related to scholarly communication and teaching & learning
What’s going on in digital scholarship?

University of Oregon Archaeology and Landscape – Mongolia
https://mongolianaltai.uoregon.edu/theproject.php
Creating new forms of content

SACRED MATTERS
Sacred Matters is a web magazine of public scholarship that undercuts conventional understandings of religion and reimagines the boundaries between religion and culture.

SOUTHERN SPACES
Southern Spaces is a peer-reviewed, multimedia, open-access journal published in collaboration with the Robert W. Woodruff Library of Emory University. We publish articles, photo essays and images, reviews, presentations, and short videos about real and imagined spaces and places of the US South and their global connections.

VIRTUAL ROME PROJECTS
Two projects have been developed from Giovanni Battista Falda’s exceptionally detailed 1676 plan of Rome, both a virtual experience and a zoomable version of the map.

Emory Center for Digital Scholarship
http://digitalscholarship.emory.edu/publications/index.html
Using GIS in many disciplines

http://invasionofamerica.ehistory.org/
New Outputs of Research (It’s not just text anymore)

During the height of the Ebola crisis, the Research Hub helped develop a website to track the disease.

Using tools for analysis

Tools

The HTRC will offer a suite of tools for computational text analysis. These tools will cover a wide variety of functions ranging from simple statistical analysis of words to complex algorithms relating concepts and meaning.

The Software Environment for the Advancement of Scholarly Research

The Software Environment for the Advancement of Scholarly Research (SEASR, pronounced “Caesar”) provides a research and development environment capable of powering leading-edge digital humanities initiatives and fosters collaboration by empowering scholars to share data and research in this virtual work environments. SEASR was developed with funding by the Andrew W. Mellon Foundation.

Author Search

The Author search is a demonstration of the integration of the SEASR and the HTRC infrastructure. This tool provides several examples of text analysis and visualization which are created by searching bibliographic information stored in the HathiTrust Research Center collections and calling SEASR web services for analytical processing.

SEASR Services Supports HTRC Data from Zotero

SEASR Services Supports HTRC Data from Zotero. We have modified existing SEASR services for Zotero to load HTRC data for a demonstration collection. You can create tagclouds, 2 gram tagclouds, extract data entities to plot on a timeline, locations to plot on a map, and people to show the social network of relationships.

Printer-friendly version

HathiTrust Research Center
https://www.hathitrust.org/htrc_collections_tools
3-D Representations

http://mappinggothic.org/
Students creating e-books

Digital Dubliners
A Multimedia Edition

A totally new reading experience
June 2, 2014

Students at Work

Boston College Course Project https://digitaldubliners.com/
Undergraduate course projects incorporate digital scholarship and have a public presence.

Mapping and Memories: Easton’s Lebanese Neighborhood

In addition to utilizing this mapped environment, Andrea’s project also includes an element of crowdsourcing. Begun in 2007 as field work with her students, the project examines the demolition of Easton’s “Syrian Town,” a once a thriving multi-ethnic community destroyed when over 800 homes were torn down under the auspices of urban renewal in the 1960s. Though the wounds of this destruction are still felt by many of the former residents, now in their 70s and 80s, there is no archive, no public display that marks its existence.

Smith has been working with her students to preserve the memory of this unique space through an oral history project that collects the residents’ photographs and stories. With help from Paul Miller, Digital Production Manager for DSS, Smith and her students held “Scan-a-thons” with local residents. The team scanned and collected hundreds of photos and memorabilia for residents helping them preserve their family memories and helping to build a digital collection.

With funding from the Mellon grant, she is able to share her findings even more broadly. The new application developed by DSS uses a base map made from Easton Area Public Library insurance maps dated 1939, when the Lebanese neighborhood still existed, to geo-reference the images and stories Smith has collected. Smith and her team will then pin stories and images to the map virtually recreating the neighborhood and its culture. The next step of the project will include the functionality for residents to upload and share their own stories and photos adding to Andrea’s existing collection.

https://library.lafayette.edu/node/3131
Collaborative nature of research

- Within the institution
- Among individuals with different roles and expertise
- Among institutions

Project Directors:
Esther Jacobson-Tepfer, Maude I. Kerns Professor Emeritus, Department of Art History, University of Oregon
James E. Meacham, Director, InfoGraphics Lab, Department of Geography, University of Oregon

Photographer
Gary Tepfer

Department of Geography, University of Oregon
Ken Kato, Assistant Director, InfoGraphics Lab
Erik Steiner, Designer and Developer, InfoGraphics Lab
Jacob Bartruff, Programmer Analyst, InfoGraphics Lab
Athea Steingesser, Cartographer, InfoGraphics Lab
Lee Pera, Graduate Research Fellow, InfoGraphics Lab
Emma Pachuta, Graduate Research Fellow, InfoGraphics Lab
Nicolas E. Kohler, GIS/Remote Sensing Specialist

University of Oregon Libraries
Jon Jablonski, David and Nancy Petrone MAPGIS Librarian
Karen Estlund, Digital Collections Coordinator
Kerstin Hierholzer, Assistant Director, Center for Media and Educational Technologies: Interactive Media
Shayne Huddleston, Website Technical Lead, CMET: Interactive Media
Azle Malinao-Alvarez, Website Design Lead, CMET: Interactive Media
Julia Stincic, Visual Resources Librarian
River Aaland, Research Assistant

https://mongolianaltai.uoregon.edu/theproject.php
Digital Scholarship Programs Bring Together:

- New forms SC
- Spaces
- T&L
- Expertise
- Tech & Tools
<table>
<thead>
<tr>
<th>Library Center or Faculty Institute?</th>
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</thead>
<tbody>
<tr>
<td><strong>Center</strong></td>
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<tr>
<td>- Library administered</td>
</tr>
<tr>
<td>- Primary funding from institutional budget</td>
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<tr>
<td>- Partners with and offers services to a variety of disciplines and users</td>
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<tr>
<td>- Strong interest in lifecycle issues</td>
</tr>
<tr>
<td><strong>Institute</strong></td>
</tr>
<tr>
<td>- Faculty/academic department administered</td>
</tr>
<tr>
<td>- Primary funding from project grants</td>
</tr>
<tr>
<td>- Work on projects of affiliated faculty, often in defined discipline</td>
</tr>
<tr>
<td>- Strong interest in answering new research questions</td>
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Why is a library a good place for a digital scholarship center?

- Mission to support (e-)research and (digital) scholarship
- Bring together expensive technologies for use by all campus departments
- Bring together expertise to serve all campus departments
- Support graduate and undergraduate students independently or through coursework
Data from participants in CNI Workshop 2014: What services are offered? N=21

<table>
<thead>
<tr>
<th>Service</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consult on digital technologies</td>
<td>21</td>
</tr>
<tr>
<td>Consult on digital preservation/curation</td>
<td>19</td>
</tr>
<tr>
<td>Workshops</td>
<td>19</td>
</tr>
<tr>
<td>Consult digital project management</td>
<td>18</td>
</tr>
<tr>
<td>Consult on intellectual property</td>
<td>13</td>
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Average number of services offered = 7
What services are offered?  
N=21

<table>
<thead>
<tr>
<th>Service</th>
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<tbody>
<tr>
<td>Makerspace</td>
<td>9 + 2 3-D printers</td>
</tr>
<tr>
<td>Media production studio</td>
<td>9</td>
</tr>
<tr>
<td>Visualization studio</td>
<td>8</td>
</tr>
<tr>
<td>Credit course</td>
<td>7</td>
</tr>
<tr>
<td>Certificate program</td>
<td>4</td>
</tr>
</tbody>
</table>
Data from participants:
Services offered - other

- Grant writing assistance
- Repository development/mgt
- Project development
- Data services
- Imaging
- Text analysis
- Repository management
- Internships
- Grad student fellowships
- Consult pedagogy/instructional technology
- Usability lab
- Seed grants
- Conference
- Community building
Data from participants CNI survey 2014: What type of staff is involved in the center?

<table>
<thead>
<tr>
<th>Type of Staff</th>
<th>Number of Centers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Librarians</td>
<td>21</td>
</tr>
<tr>
<td>Information Technology</td>
<td>21</td>
</tr>
<tr>
<td>Professionals</td>
<td></td>
</tr>
<tr>
<td>Graduate Students</td>
<td>15</td>
</tr>
<tr>
<td>Undergraduate Students</td>
<td>15</td>
</tr>
<tr>
<td>Multimedia Professionals</td>
<td>12</td>
</tr>
<tr>
<td>Faculty</td>
<td>11</td>
</tr>
</tbody>
</table>

Typically 4-6 types of staff per institution
What kinds of new methods and expertise are offered?

Brown University Center for Digital Scholarship
http://library.brown.edu/cds/
Places: Creating a Sense of Community

The Kitchen Table – Greenhouse Studio – U. Connecticut
Faculty, staff, & students need workshops, courses, and training

Arduino Workshop at McMaster
What is the role of graduate student fellows

University of Virginia Scholars’ Lab
http://scholarslab.org/graduate-fellowships/
Break/kitchen Area

McMaster U. Centre for Digital Scholarship
Consultation and Project Space

Willson Center DigiLab – U. Georgia – from Google Images
Consultation and Project Space

Bucknell U. Digital Scholarship Center
Project space and specialized tools

Duke University – The Edge
Group workstations with specialized software

The CURVE Georgia State U.
Collaborative spaces in public areas

UCLA Young Research Library
Workshop Space

Claremont Colleges Libraries
Spaces for presentations and display

UCLA Young Research Library
Large displays for analysis and interaction

Georgia State U. The CURVE
Data visualization for research, learning, and display

Hunt Library, NCSU
Makerspaces

Hill Library NCSU
Virtual Reality
Digital Scholarship Facilities Can Incorporate

- Consultation areas
- Space for long term project work
- Work areas for fellows
- Workshop areas
- Project display area
- Reception areas
- Informal spaces for conversation
- Staff space
- Visualization walls
- Makerspaces
- Specialized hardware – plotters, scanners, dual monitor computers
- Specialized software – GIS, statistical analysis, visualization
- Augmented/virtual reality facilities
- Workstations for group projects
Do Your Constituencies Know What You Offer?

Working with BIG data?

Experience the Visualization Studio a 34.5 million pixel display wall.

Taylor Family Digital Library – University of Calgary
Conveying information on websites

https://digi.uga.edu/about/
DigiLab

The Willson Center Digital Humanities Lab, known informally as the DigiLab, is a state-of-the-art instruction space as well as an incubator and publicity hub for nationally recognized digital humanities projects. Opened in 2015, it is outfitted with flexible workspaces for individual or collaborative projects and with advanced technological resources. The DigiLab is located on the third floor of the Main Library, across from the newly renovated Reading Room and adjacent to the University of Georgia Press.

Software

The following programs are installed on all lab computers and laptops

**Graphic Design**
Adobe Creative Suite
(Photoshop, Acrobat, etc.)
SketchUp Pro

**Text Mining**
Ant series (AntConc, VariAnt etc.)
Mallet

**Mapping**
ArcGIS
QGIS
Social Explorer

**Text Editing**
jEdit
Komodo Edit

https://digi.uga.edu/digilab/
Making spaces and services visible online

http://lib.fit.edu/dsl/
Hosting events – Hackathon at Georgia State The CURVE

Photo Displayed During Tour of The CURVE
DH projects have less external funding and rely more on institutional support.

DH projects employ many of the same technologies and have similar needs to other disciplines.

Institutions need a framework and guidance for developing programs to support digital humanities.

More institutions need to move from ad hoc support of digital humanities to integrated, institutionalized support.
ECAR/CNI Working Group on Supporting Digital Humanities

- IT and library organizations provide infrastructure and partner with researchers and students on projects and programs
- ECAR convenes experts to produce white papers on a variety of topics; CNI occasionally partners
“This paper outlines a **practical framework for capacity building to develop institutional DH support** for IT staff, librarians, administrators, and faculty with administrative responsibilities. All major facets of capacity building are discussed—including organizational models, governance, human and technical infrastructure, and the cultural shift from a solo-practitioner research model to one based on collaboration—and **each facet is described in three stages of capacity: early stage, established, and high capacity.** These stages are designed to be applicable regardless of the institution type, the chosen organizational model, or the specifics of campus partnerships involved and to simultaneously recognize that it is not realistic for all institutions to expect to attain high capacity in all facets of their program.” (emphasis added)
Building Capacity for Digital Humanities: A Framework for Institutional Planning


Topics

• Getting Started (Environ. Scan and Needs Assess.)
• Organizational Models
• Funding & Institutional Investment
• Governance
• Infrastructure
• Roles & Capabilities
• Communications & Outreach
• DH Acceptance & Support
Moving from interest to implementation: roles & capabilities

<table>
<thead>
<tr>
<th></th>
<th>Early Stage</th>
<th>Established</th>
<th>High Capacity</th>
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<tbody>
<tr>
<td><strong>Communication</strong></td>
<td>DH projects are mostly ad hoc and at a grassroots level. No IT or library personnel are dedicated to DH projects, but interested partners begin to emerge.</td>
<td>Key players begin to be identified, namely technical experts and curricular and pedagogical champions. Additionally, there is commitment from IT and library for storage and preservation.</td>
<td>A formal DH or digital scholarship center/program is established, with dedicated faculty and staff for software development, hosting, and long-term preservation of projects. The DH program is a model for IT-library-faculty (intercampus) collaboration.</td>
</tr>
<tr>
<td><strong>Outreach</strong></td>
<td>There is informal curricular infusion of DH concepts, but it is often isolated and without coordination. A few instructors begin to incorporate DH methods and hands-on projects into their courses.</td>
<td>Courses appear with DH or digital scholarship in their titles/descriptions.</td>
<td>There is broad curricular buy-in across multiple disciplines; formal credentialing, certificate, or degree programs are offered.</td>
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</table>
## Moving from interest to implementation: roles & capabilities

<table>
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<tr>
<th>Education and Training</th>
<th>Recognition</th>
<th>Collaborative partnerships</th>
</tr>
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<td>Individuals begin to form support groups and share ideas around DH. However, formal lines of communication are lacking, as is campus awareness of DH events and meetings.</td>
<td>A few faculty emerge as potential content innovators, but there is no formal recognition of their efforts; digital humanities may not be considered in promotion and tenure decisions.</td>
<td>Collaborative partnerships offer student assistantships and fellowships, and original contributions are produced with high grant-award capacity.</td>
</tr>
<tr>
<td>Formal user groups meet to share knowledge and experience; workshops and professional opportunities are promoted through formal communication channels. Additionally, collaborative partnerships are formed between departments and campus units to support DH.</td>
<td>There is support for generating new forms of DH scholarship, and digital humanities is considered in promotion and tenure decisions.</td>
<td>The institution recruits top DH scholars and formally recognizes DH scholarship in its promotion and tenure decisions.</td>
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Web resources


- Workshop agenda and PPTs, report, profiles
- 2016 report https://www.cni.org/events/cni-workshops/dscw16
- ARL profiles http://www.arl.org/focus-areas/scholarly-communication/digital-scholarship/digital-scholarship-support
- ECAR/CNI Working Group on Supporting Digital Humanities
- ARL/CNI Digital Scholarship Planning Workshop @Brown U. 11/8-10/17
Thank you!

- Joan K. Lippincott
- joan@cni.org
- https://www.cni.org/about-cni/staff/joan-k-lippincott
- All photos are my own unless otherwise indicated
- Photo: Joan visiting The CURVE@Georgia State U.