Directions in Digital Scholarship:
Support for Digital, Data-intensive, and Computational Research

Joan K. Lippincott
CNI Spring 2023 Membership Meeting
April 3, 2023
Components of the Initiative

- Interviews
- Institutional Profiles
- Invitational forums
- Report
- Session at CNI Spring 2023 Meeting
- Webinars

Digital Scholarship

What is Digital Scholarship?

Digital Scholarship extends traditional methods of research by leveraging new technologies and digital data to advance research and enhance pedagogy. While it is most commonly associated with Digital Humanities, Computational Social Science, and Data Science, Digital Scholarship is applicable to all disciplines, and it often relies on interdisciplinary collaborations. Examples of Digital Scholarship include:

- Text and data mining: apply computational and statistical methods to macroscopically explore large texts and data
- Social network analysis: uncover relationships and interactions between people, places, texts, etc
- Geospatial analysis: create data-driven maps
- Data visualization: analyze and display patterns, correlations, and other findings in meaningful ways
- Digital exhibits: build collections of images, texts, and sound to tell engaging stories
- Digital project management: get help designing and organizing your digital project to ensure scalability and sustainability

https://www.colorado.edu/libraries/research/digital-scholarship
Institutional programs: U. Pennsylvania

Research Data & Digital Scholarship

The Penn Libraries Research Data & Digital Scholarship team facilitates data-driven and data-literate research and scholarship across the disciplines and fosters informed and ethical data communities at Penn.

Interested in data, computational research, digital humanities, or open and public scholarship? Join the Research Data & Digital Scholarship mailing list to be first in the know about upcoming workshops, talks, and other events!

https://www.library.upenn.edu/page/research-data-digital-scholarship
Institutional programs: Swarthmore
Research-oriented activities

THE DIGITAL SCHOLARSHIP GROUP

The DSG is part of Northeastern University Library’s digital scholarship services, supporting digital modes of research, publication, and collaboration at Northeastern. We provide expertise, infrastructure, and strategic guidance for researchers and projects, and we offer a wealth of activities to help you get involved and learn more.

The DSG has resumed on-campus work as of the 2022–23 academic year but continues to have virtual events, including some of our Open Office Hours sessions and the Fall Scholarship Celebration. Details about these events, such as physical and virtual locations, can be found on our Events page.

https://dsg.northeastern.edu/
Instructional activities

UO LIBRARIES SEEKS GE COURSE ASSISTANT FOR LIB 410 HUMANITIES RESEARCH DATA MANAGEMENT

Fall OER and Digital Publishing Workshops
Introduction to Open Educational Resources & Textbook Affordability - ONLINE Open Educational resources (OER) are free and openly licensed course materials that can be used to support teaching and learning. In this session, we'll discuss what we know about how...

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https://blogs.uoregon.edu/dreamlab/
DEI programs

- More partnerships on projects that highlight diverse groups & content
- More exhibits highlighting diversity
- Outreach to campus groups with diverse populations
- Hosting events highlighting diversity

Institutional alignment

- Variable
- STEM-oriented institutions strong on alignment
- Changes in institutional priorities over time
- New partnerships, infusion of resources by institution or other units
Scope of programs

- Consultations
- Instruction
- Constituencies include faculty, graduate students, undergraduates, staff, community
- Changes in past 5 years
- Most are supplemented by external and/or internal funding
- All have some physical facilities
## Relationship of DS, data-intensive, and computational activities

### Currently
- Increasing overlaps
- Less overlap when high end research computing is involved (except initial consultations)
- Few have these areas under one organizational unit

### New Approaches
- Reorganization of library functions and staff
- Concierge model
- Improved communication to constituencies
# Physical facilities

<table>
<thead>
<tr>
<th>Most frequent</th>
<th>Least frequent</th>
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<tbody>
<tr>
<td>Training/classroom spaces</td>
<td>AI lab</td>
</tr>
<tr>
<td>Consultation spaces</td>
<td>Data science lab</td>
</tr>
<tr>
<td>Spaces for collaborative projects</td>
<td>Visualization space</td>
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Key Partnerships

- Research office
- Research computing
- Central IT & departmental IT
- Provost’s office or college
- DEI program
- Museum
- Publishing program
- Office of student affairs
- Teaching & learning center
### Sustainability

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<tr>
<th>Promotes</th>
<th>Impedes</th>
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<tr>
<td>• Strong administrative and faculty support</td>
<td>• Lack of general understanding of program</td>
</tr>
<tr>
<td>• Uptake of DS practices by faculty</td>
<td>• Gaps in capacity, affordability, and expertise of staff</td>
</tr>
<tr>
<td>• Participation in program by staff from many units</td>
<td>• Lack of formal agreements</td>
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<tr>
<td>• Clear guidelines for projects</td>
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What’s next for programs

- Create AR/VR spaces & services
- Establish data visualization facilities
- More computational & data services
- Expand digital publishing
- More intensive instructional programs
- Provide a more unified, holistic approach
- Strengthen campus partnerships
Additional areas to address in future

- Organizational structure
- Communication
- Assessment
Organizational Structure

- What is included in the DS program?
- How are DS programs and data-intensive/computational programs administered?
- How is the library represented in discussions at the university level?

Brown University Center for Digital Scholarship
https://library.brown.edu/create/cds/
<table>
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<tr>
<th><strong>Communication</strong></th>
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<tr>
<td><strong>Internal</strong></td>
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<tr>
<td>- To library staff in general</td>
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<tr>
<td>- To subject liaisons</td>
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<tr>
<td>- To supervisors</td>
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<tr>
<td><strong>External</strong></td>
</tr>
<tr>
<td>- To potential users and partners</td>
</tr>
<tr>
<td>- To university administration</td>
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<tr>
<td>- To funders</td>
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Assessment

Needs

- One size does not fit all institutions
- User needs
- Environmental scan (institution)
- Expertise of staff

What is success?

- Relationship to institution’s goals and strategic plan
- Quantitative and qualitative data
- Communicating assessment results
CNI DS Webinar – April 20, 2023

- Characteristics of 3 institutional programs
  - Mission and institutional alignment
  - Planning and assessment
  - Constituencies served
  - What’s next

- Joe Lucia, Dean of University Libraries, Temple U.

- Nicky Agate, AUL for Research Data & Digital Scholarship, U. Pennsylvania

- Olivia Wikle, Digital Initiatives Librarian, U. Idaho
Discussion Questions

- At your institution, what are the connections and disconnects among programs supporting DS, data-intensive, and computational research? How would you make changes?

- How have DS programs at your institution changed in the past 5 years?

- What are key sustainability factors for your DS program?

- Your questions
Thank you!

- Thanks to interviewees and forum participants
- Contact me: Joan Lippincott, Associate Executive Director Emerita, CNI
- joan@cni.org