Overlaps and Gaps between Teaching and Research: Digital Scholarship at Yale

Themba Flowers
Director, Digital Scholarship Services
Yale University Libraries

Terminology: Define Digital Scholarship
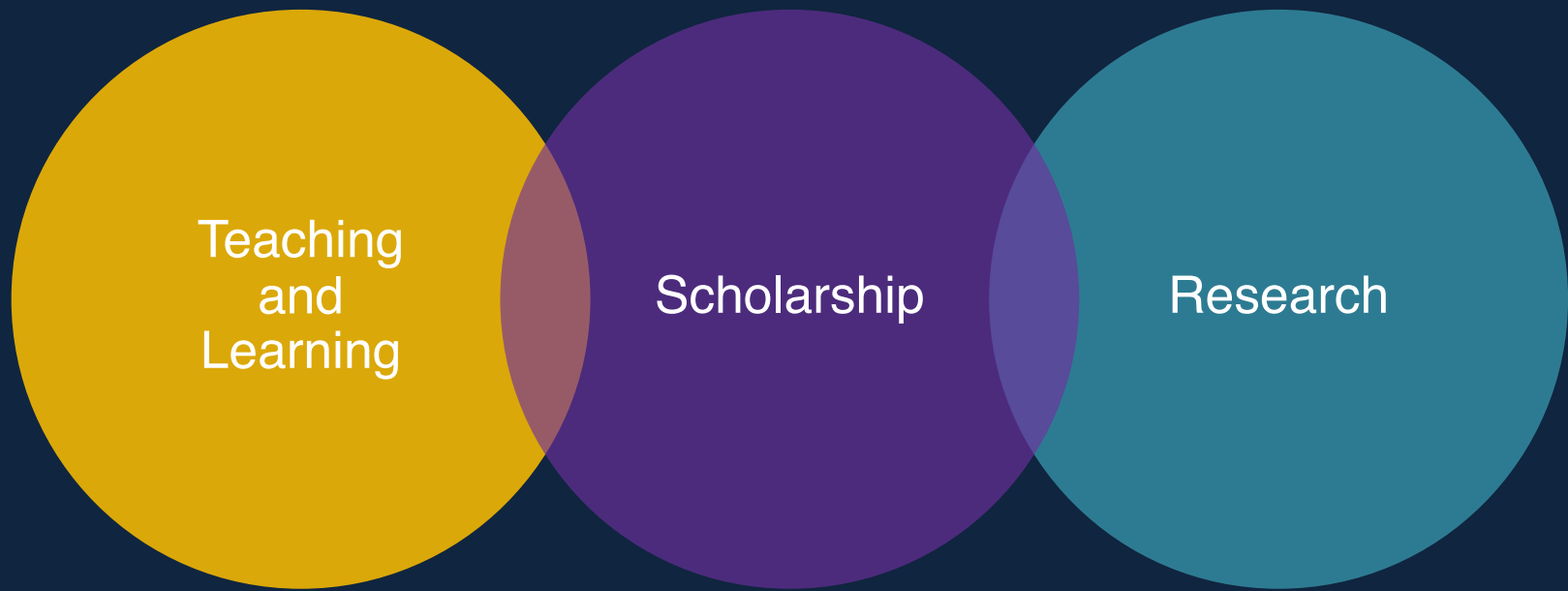
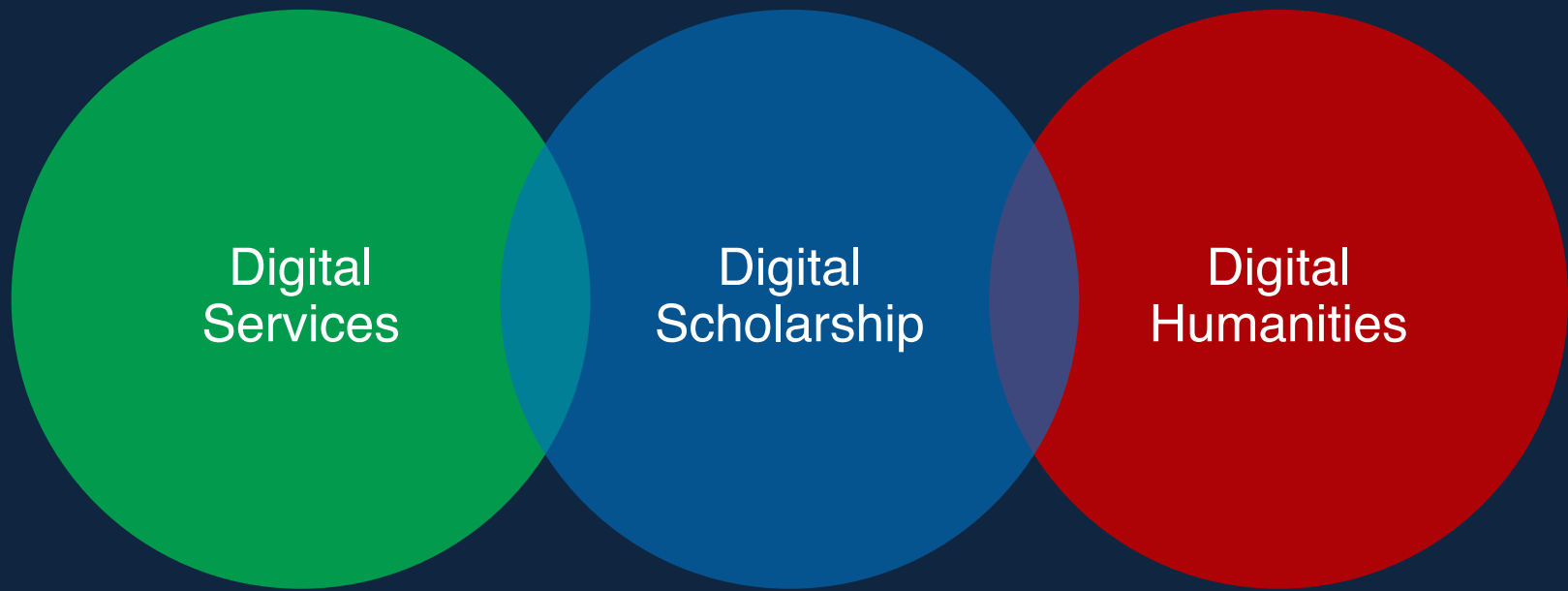Yale: Origin Stories and Context

Assessment

Re-alignment

Single Point of Service

What's next?

BASIC OUTLINE OF THIS TALK

Teaching and Learning — Scholarship — Research

WHAT IS SCHOLARSHIP?

Digital Services

Digital Scholarship

Digital Humanities

WHAT IS
DIGITAL SCHOLARSHIP?

WHERE IS
DIGITAL SCHOLARSHIP?

The Library doesn't own Digital Scholarship

Key Partners:

CEID, CTL, CCAM, IPCH, ITS, YCRC
Previously:

CMI2, ITG, YDC2, DMCA, ODAI

YUL does have key services in support of Digital Scholarship

WHO IS
DIGITAL SCHOLARSHIP?

Lapinsky Public Opinion (with Washington Post)

Economic Growth Center Digital Library (ssrs.yale.edu/egcdl/)

Galapagos (cmi2.yale.edu/galapagos_public/)

Himalayan Collections (himalayancollections.commons.yale.edu)

Jonathan Edwards Online (edwards.yale.edu)

Photogrammar (photogrammar.yale.edu)

Ten Thousand Rooms (tenthousandrooms.yale.edu)

Robots Reading Vogue (dh.library.yale.edu/projects/vogue/)

Black Sound Project (blacksound.yale.edu)

Physics and Dance (2012 and 2019)

EXAMPLE PROJECTS

WHEN <TO BE VERB> DIGITAL SCHOLARSHIP?

Library Digital Services Strategy Task Force Summary

After updating and re-launching the YUL Project Review Committee, the Library Digital Services Strategy Task Force (LDSS) engaged in a process to identify and describe a set of desired digital services for the library. The task force grouped services into six areas of focus, ranking services in each of them. This work is expressed in a worksheet as Appendix A. Areas of focus include **a single point of service model; digital repository; digital scholarship & research data; digitization services; open access; and preservation/conservation services**. Highest priorities include establishing a single point of service model; creating a base-level institutional repository service; expanding support for research data; providing streamlined, cost-effective digitization services; assuring regulatory compliance; and establishing core services related to the long- term preservation of digital files.

YUL BACKGROUND

ASSESSMENT

Service (black=LDSS, blue=ARL)	Library						
	CIDR		DLSS		Rumsey Map Center	Geospatial C
	SSDS	ATS	Data Management Service	Digitization Services		
3D Scanning Rendering		ATS - Anthro				
3-D modeling and printing						
3d Printing, MakerSpaces						
Computational text analysis/support	CIDR - hText					
Copyright assistance (DRM, Open Access, Fair use)						
Course Support and Instruction	SSDS - Software Instructor	Lecturer - within Dept.			Collab with Instructors	GIS Instruction
Data Analysis	SSDS Consultatnts/Refer to Stats Dept					
Data curation and management	SSDS					
Data management and curation	SSDS		Data Management Services- DMP Tool			
Data visualization						GIS Data Viz
Database development						
Developing digital scholarship software	CIDR - CFP projects		DLSS - EarthWorks, SDR, etc			
Digital Collections support (Purchasing/licensing)	SSDS					
Digital exhibits	CIDR Projects only					
Digital Humanities	CIDR, no real DH brand					
Digital Identity Management						
Digital preservation			Stanford Digital Repo	Born-Digital/ Forensics Lab & Media Preservation Lab		
Digital Publishing			DLSS			
Digitization (OCR, Photos, Audio/Video)	CIDR - hText		DLSS - Digital Prevervation group			
Digitization/imaging of analog material			DLSS - Digital Prevervation	Collab with DPG		
Encoding content (e.g., TEI markup)						
Facilities (Spaces, Tools, classrooms)	Uses Library spaces & Dep	Uses Department Spaces			Instruction Space	

School	Unit	URL	Organizational Home Library, Provost, IT, Statistics Department, Other	# Affiliated Faculty	Has Affiliated Faculty or Appointed Faculty?	(Includes technical support, but not administrative support or project-specific support)	Employs Students for key Instruction, Consultation, or Collaboration functions?	registrar courses? (Associated with center, not just taught by affiliated faculty)	training and workshop-based (non-registrar) instruction?	Offers consultations?	Offers focused collaboration/project execution?	Primary Audience Focus	Service Fee?	University provider for software support?
Dartmouth	Research Computing Statistical Consultir	http://rc.dartmouth.edu/index.php/s	IT	0	no		1	no	no	yes	yes	no	university community	no	no
Washington	CSSS	https://www.csss.washington.edu/	Provost	96	yes		2	yes	yes	yes	yes	no	social sciences	no	no
Princeton	DSS	http://dss.princeton.edu/dsslab/	Library	0	no		2	yes	no	yes	yes	no	university community	no	no
Wesleyan	QAC	http://www.wesleyan.edu/qac/	Provost	8	yes		2	yes	yes	no	yes	no	everyone	no	varies
Stanford	Social Science Data & Software	https://ssds.stanford.edu/	Library	0	no		3	yes	no	yes	yes	no	university community	no	varies
Columbia	Digital Social Science Center	http://library.columbia.edu/locations	Library	0	no		3	no	no	yes	yes	no	social sciences	no	varies
Harvard	IQSS - DSS	https://www.iq.harvard.edu/data-sci	Provost	0	no		4	no	no	yes	yes	no	social sciences	no	varies
Cornell	Cornell Statistical Consulting Unit	https://www.cscu.cornell.edu/	Other	4	yes		5	yes	no	yes	yes	yes	university community, external	sometimes	varies
Yale	YCAS	http://ycas.yale.edu	Provost	23	yes		5	no	no	no	yes	yes	school of medicine and school of public	sometimes	no
Tufts	Tufts Research Technology	https://it.tufts.edu/rt	IT	0	no		6	yes	no	yes	yes	no	university community	no	varies
Brown	CDS	http://library.brown.edu/cds/	Library	0	no		8	no	no	yes	yes	no	university community	no	no
Cornell	CISER	https://ciser.cornell.edu/	Provost	0	no		9	yes	no	yes	yes	no	university community	no	varies
Yale	YCRC	https://research.computing.yale.edt	IT	0	no		13	no	no	yes	yes	yes	university community	no	no
Berkeley	Berkley D-Lab	http://dlab.berkeley.edu/	Provost	1	yes		20	yes	no	yes	yes	yes	social sciences	sometimes	
UCLA	IDRE	https://idre.ucla.edu/	Provost	44	yes		32	no	no	yes	yes	yes	social sciences	sometimes	no
Harvard	IQSS - overall	https://www.iq.harvard.edu/home	Provost	118	yes		42		no	yes	yes	yes	social sciences	no	no
Duke	Statistical Consulting	http://stat.duke.edu/research/consu	Stats Dept	--	yes	--		yes	no	no	yes	no	university community	sometimes	no
Chicago	Department of Statistics Consulting Prog	https://www.stat.uchicago.edu/cons	Stats Dept	--	yes	--		yes	no	no	yes	no	everyone	no	no
Columbia	ISERP - Statistical Consulting	http://iserp.columbia.edu/grants/sta	Stats Dept	--		--		yes	no	no	yes	no	social sciences, public policy	no	no
UConn	UCONN Statistics Consulting	http://stat.uconn.edu/consulting-infc	Stats Dept	--		--		yes	no	yes	yes	yes	university community, external	sometimes	no
GW														

Service (blue=ARL; black=LDSS)	Brown Center for Digital Scholarship	Case Western Digital Learning & Scholarship	GU Digital Services	NU	NYU	Oregon DSC	MIT
(DRM, Open Access, Fair Use)			x	x		x	x
3-D Modeling and Printing	x					x	
Computational Text Analysis/Support	x			x			x
Copyright Assistance		x	x				
Course Support and Instruction							
Data Analysis							x
Data Management and Curation	x			x		x	x
Data Visualization	x				x		x
Database Development							
Developing Digital Scholarship Software		x	x				x
Digital Collections Support (Purchasing/Licensing)			x	x		x	
Digital Exhibits						x	
Digital Humanities	x				x	x	x
Digital Identity Management			x				
Digital Preservation			x				
Digital Publishing	x	x	x	x		x	
Digitization/Imaging			x			x	
Encoding Content (eg TEI Markup)							
Facilities (Spaces, Tools, Classrooms)	x					x	
Fellowships/Incubator Funding							
GIS and Digital Mapping	x				x		x
Grant Writing/Planning (External Funding)							
Identity (Orcid) - see Digital Identity Management			x				
Image Analysis Techniques							
Instructional Design and EdTech						x	
Institutional Repository		x	x				
Learning <anagement System						x	
Metadata Services		x					
Online Training & Resources (eg Lynda)							
Open Access			x	x			x
Project Management	x		x			x	x
Repository Management						x	
Research Computing							x
Research Impact Assessment/Citation Management							x
Scholarly communication	x	x				x	
Software, Hardware		x				x	
Statistical Analysis/Support						x	x
Text and Data Mining	x		x		x		
UX Assessment and Design							
Video Services						x	

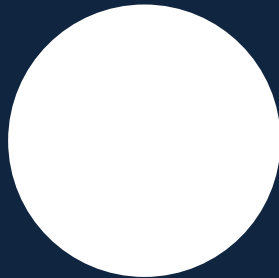# QUANTITATIVE:RANDOM:: QUALITATIVE:CONSISTENT

Digital Scholarly Communications/Publishing

Data Services

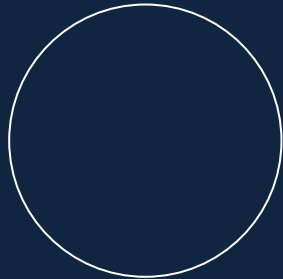Digitization

Digital Preservation
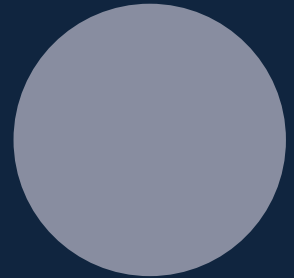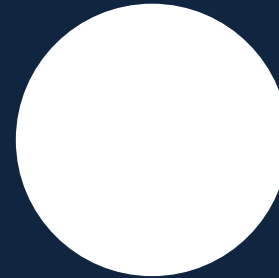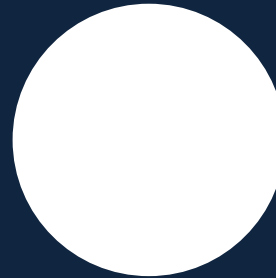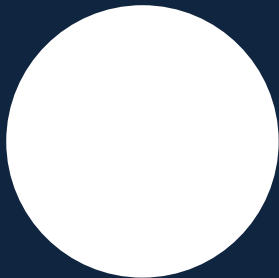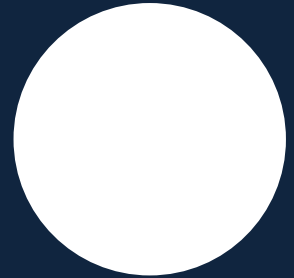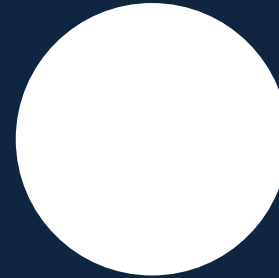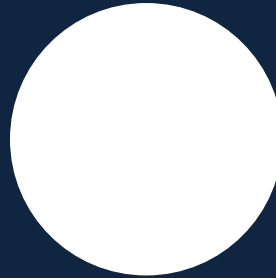
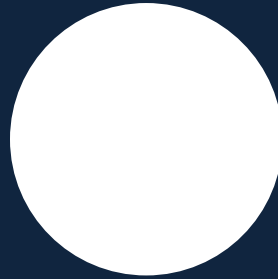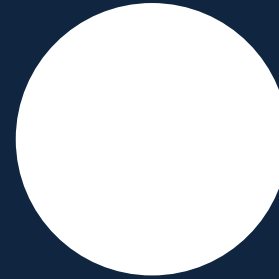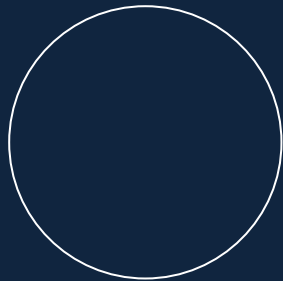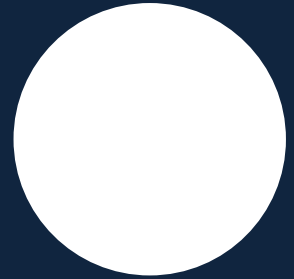Digital Project Planning

Digital Scholarship

Digital Technologies

Metadata Services

ASSESSMENT RESULTS

Digital Scholarly
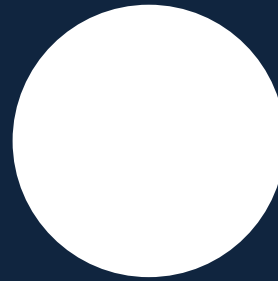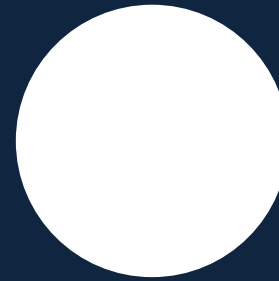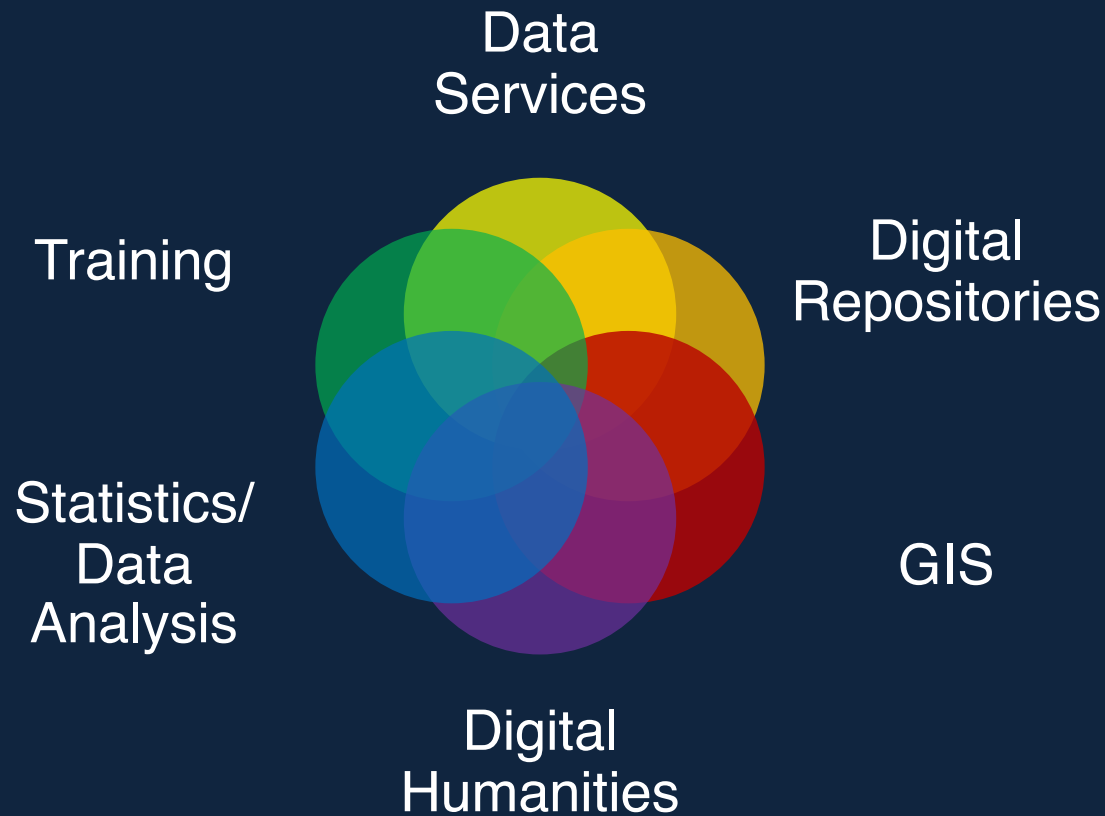Communications/
Publishing

Data Services

Digitization

Digital
Preservation

Digital Project
Planning

Digital
Scholarship

Digital
Technologies

SERVICE GAPS

Data Services

Digital Repositories

Training

GIS

Statistics/Data Analysis

Digital Humanities

WHY DIGITAL SCHOLARSHIP?

Alignment with the Provost for University Strategies

Service organization not personnel organization

Hub and virtual single-point-of-service

Project Management across lifecycle

Showcasing DS projects

DIGITAL SCHOLARSHIP SERVICES FOCUS

CRM to normalize request process across service providers. Data could complement other data sources. Importantly, capture number of times we say "No" and why. Important for projects across teams.

Website as a user-centric, accessible, and aesthetic web presence that presents a clear matrix of services from YUL (with links to university partners). Reduce "I didn't know you did that."

VIRTUAL SINGLE-POINT-OF-SERVICE

Yale University Library, in close collaboration with campus partners, offers a broad range of digital services that build, develop, and provide tools and expertise to help the Yale community create, transform, preserve, and disseminate scholarship. We use the categories listed below as entry points into our support network.

Digitization

Transform objects from the Library's collections including books, music, film, and video into high-quality digital objects for manipulation, analysis, preservation, and incorporation into scholarly publishing.

Digital Preservation

Recover files from old formats including bulk migration, reel-to-reel, floppy, zip, SyQuest drives, born-digital media transfer, and digital collections accessioning for stable long-term access and preservation.

Digital Project Planning

Learn about grant writing and external funding opportunities, Yale resources for digital projects, best practices for project management, user experience & assessment, as well as digital collection assessment.

Digital Publishing & Scholarly Communication

Use Omeka and WordPress to create digital collections and interactive exhibits. Learn about copyright, licensing, and intellectual property. Maximize visibility with research impact assessment, altmetrics, ORCID, and permanent identifiers (DOIs).

Digital Scholarship

Develop scholarly evidence with web scraping, data visualization, and novel techniques using a wide range of approaches from digital humanities to GIS & mapping, image analysis to text & data mining techniques, database development to software & more.

3D Printing & Modeling

Get access to 3D printing, scanning, modeling software and tools. Connect with the Center for Engineering Innovation & Design for training & community.

Augmented and Virtual Reality

Immerse yourself in AR/VR software & hardware, motion capture & video studio space, as well as training at the Center for Collaborative Arts & Media.

Educational Technology & Media

Engage with the latest technology for classrooms provided by the Poorvu Center for Teaching & Learning. Get video recording & streaming for classrooms on campus.

Research Computing

The Yale Center for Research Computing provides training and infrastructure for research storage, data security, and High Performance Computing (HPC).

Research Data Services

Visit the StatLab for assistance with statistical and data analysis techniques. Learn best practices in discovering and acquiring data, creating a data management plan, and long-term storage for research data.

SERVICE CATEGORIES

Sustainable Innovation

Tier 3
(8-15)

Tier 2
(100s)

Tier 1
(1000+)

Lean Canvas

High-level concept
What is the driving question of this project?

Problem
What top 3 problems will you
Please list by priority:

Unique Value Proposition
How is your project distinct from other projects?

Solution
What top 3 features will allow

Researcher Requirements
What data, materials, and content will you need to provide?

Project Planning & Design

A step-by-step guide for user-centered digital project design

Initial Consultation

The initial consultation is an opportunity to explore the project vision, scope, and assess its viability as a DH project.

Visit the DHLab during **Office Hours** or sign up for a consultation.

Planning & Research

The client provides sample data to the production team to assess the scope and deliverables discussed in the initial consultation.

Select data that gives a good idea of its range, complexity, and scale.

Lean Canvas

This exercise sets project goals, identifies target audiences, and crystallizes the research question driving the project.

Get brainstorming and download this handy **Lean Canvas** to share with your collaborators.

User Experience

The **User Analysis** translates high level concepts into step-by-step user journeys that inform how to storyboard features around your users.

Sketch collaboratively to collect the best **Ideation** as the basis for designing wireframe mockups.

The **Project Charter** articulates specific production goals and deliverables:
- Team members, roles, and responsibilities
- Project constraints, risks, and dependencies
- Acquisition and managment plan for data including related media and permissions

Project Charter

- Web and software infrastructure decisions
- Timeline and budget requirements
- Final wireframe mockups for production

The Project Charter is signed off by all parties before production can begin.

Content & Design

Production begins by establishing a clear workflow and channels of communication for team members. Design and

Coding & Analysis

Development includes building both the back and front ends of application as well as coding for data analysis and
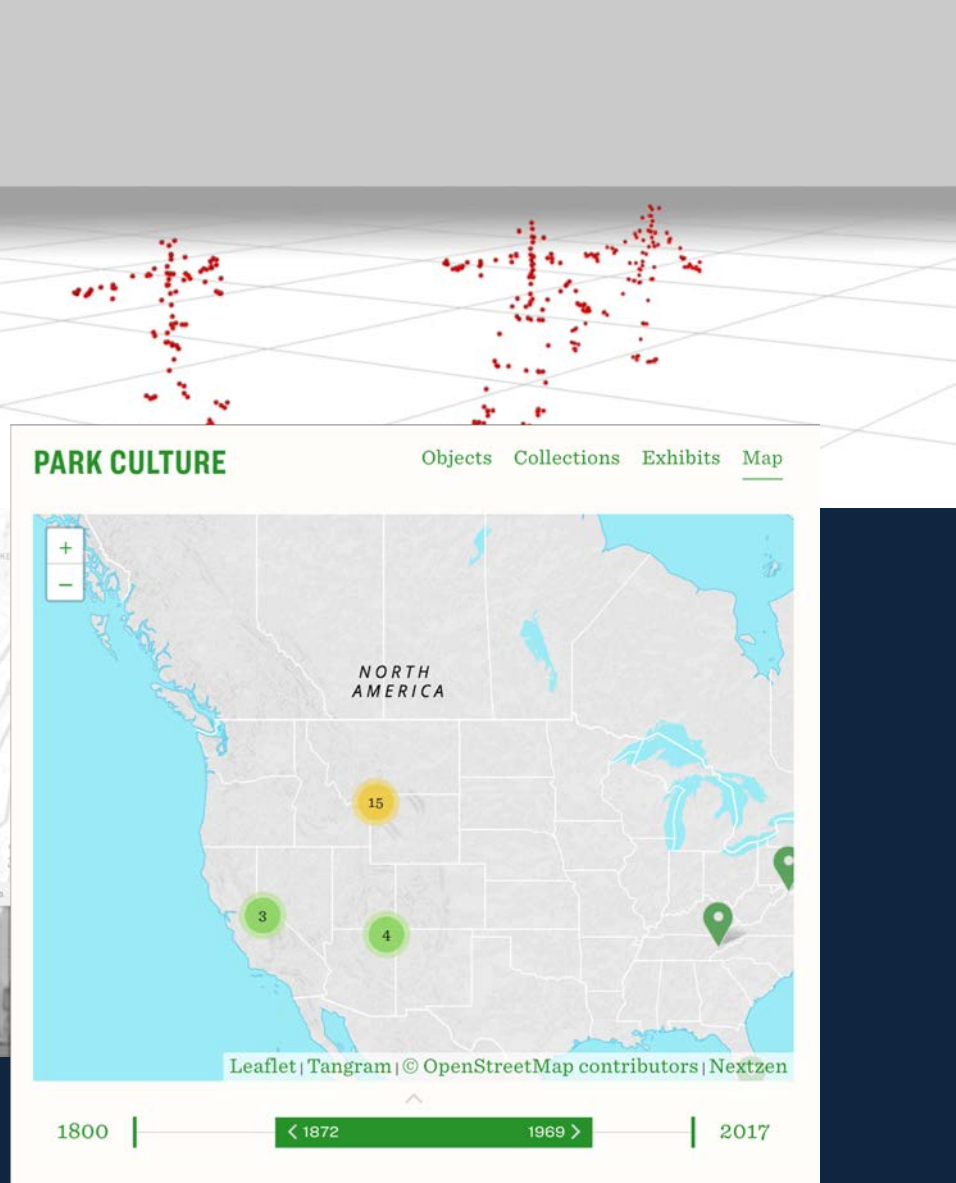
User Testing

Once a prototype is created, begin user testing to identify any areas of improvement to ensure the product's success.

Closing & Sustainability

The **Project Closeout** details the long-term governance of the project's sustainability, maintenance, and operation.

PROJECT MANAGEMENT EXPERTISE

SHOWCASE
DIGITAL SCHOLARSHIP

Assessment and Wrap-up

    If we were to "dashboard", what would we capture?
    Pre/post evaluation of DS at Yale
Non-denominational website
Work *much* more closely with liaisons, archives, museums
Outreach

NEXT STEPS

Thank you

Thoughts, ideas, questions?