

2014



SEFLIN<sup>™</sup>  
VIRTUAL  
CONFERENCE

FRIDAY, SEPTEMBER 19<sup>TH</sup>



USER  
EXPERIENCE

SEEING YOUR LIBRARY THROUGH THE USER'S EYES

**Designing your spaces,  
services, and organization  
around your users**

Elliot Felix, brightspot strategy

# about elliot felix



*Elliot founded and leads brightspot.*

*Originally trained as an architect.*

*He is a strategist, facilitator, and sense-maker who has directed projects for leading companies, non-profits, cultural institutions, colleges, and universities.*

*Solving space, operational, and organizational problems gets him up in the morning.*

*Thinking about the future of work and learning keeps him up late.*

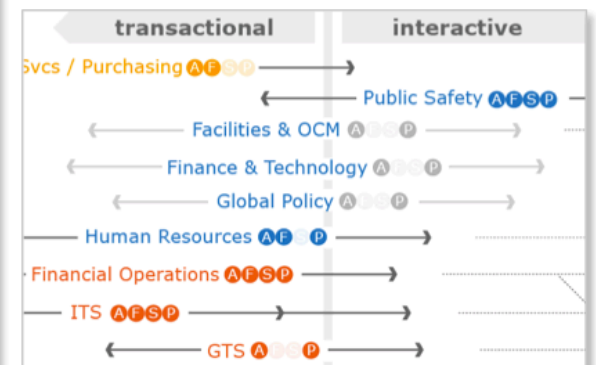
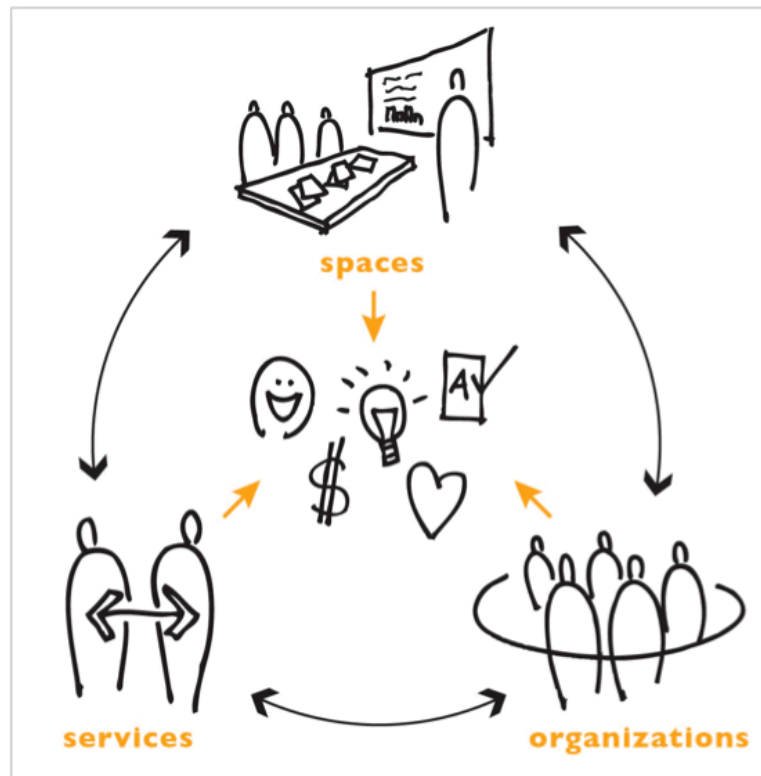
# about brightspot strategy

*brightspot guides organizations to their future. We partner with leading organizations to craft creative, achievable strategies for their spaces, services, and people. Our engaging process combines stories and stats to shape how organizations and individuals grow and connect – to ideas, information, and each other.*

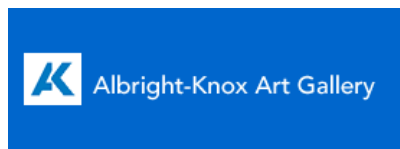
**Space  
Programming,  
Planning &  
Strategy**

**Service Design  
& Operational  
Planning**

**Organizational  
Development**



# our experience





# agenda

Our agenda for today:

- A. Trends Influencing Library Design
- B. Understanding Users and Their Experiences
- C. Spaces
- D. Services
- E. Staffing
- F. Case Study: NC State Hunt Library
- G. Q & A

# poll: about you

*Which of the following best describes your knowledge of user-centered design:*

- A. What's that?*
- B. Just getting my feet wet*
- C. Learning and liking what I see*
- D. Expert and true believer*
- E. Not sure I buy it...*

**making the case**

# mobile and collaborative learning

1

*Users are increasingly mobile, requiring an integrated approach to the spaces, information, and people to support it. Institutions are also embracing active and project-based learning.*



**MIT Stata Center**

Frank Gehry



**UMN Active Learning Classroom**

KPF Architects

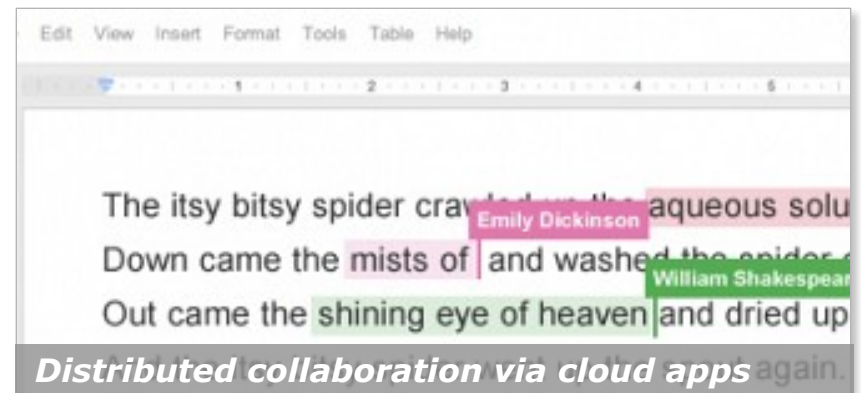
# distributed, data-driven research

2

*Research is increasingly involving collaborations across disciplines and geography and is becoming more data-intensive, with support needed to gather, store, manage, analyze, visualize, curate, and share it.*



**Hathi Trust Research Center**

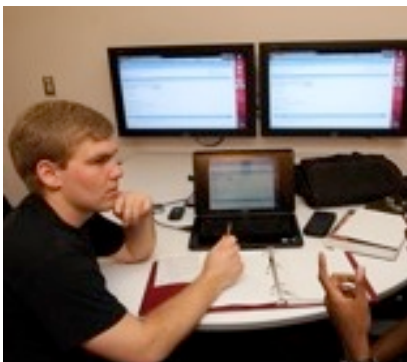
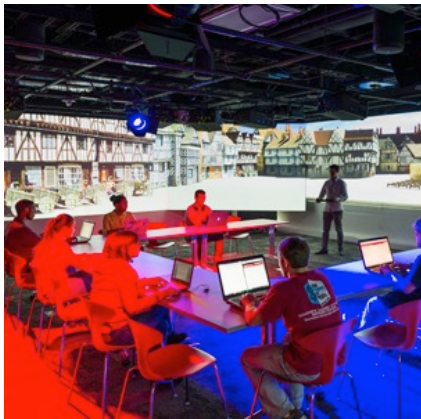


**Distributed collaboration videoconference**



# rebalancing user space/collections

*Libraries are allocating space to provide more user space (and more collaborative and varied spaces), enabled by new ways of compacting and accessing collections.*



**Variety of user spaces**



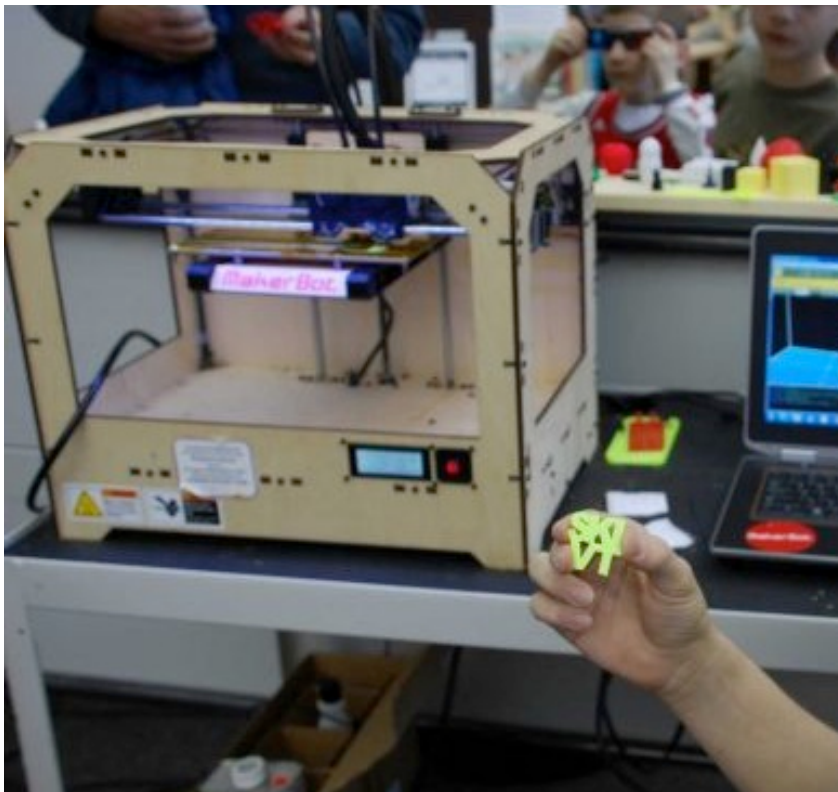
**Balancing efficient storage / effective access**



# supporting digital & physical making

# 4

*Libraries are increasingly places where information is not only accessed, but created as well, and in new forms that are interactive and media-rich, both digitally as well as physically. This is the transition from "commons" to "studio."*



**Westport Library Makerspace**



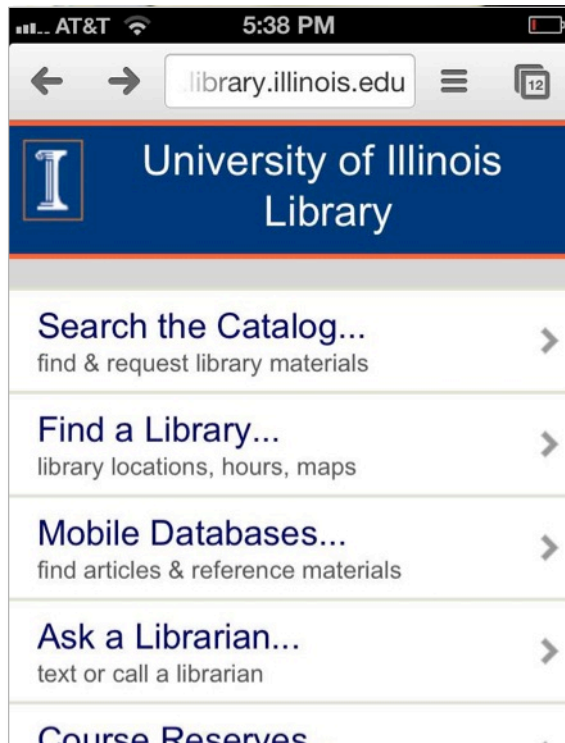
**Seattle University Digital Media Center**

Pfeiffer Architects

# new service paradigms

*To support their users, libraries are enabling more self-service, providing more proactive mobile services, co-locating or integrating services, and shifting interactions from transactional to consultative*

## Mobile / Self Service

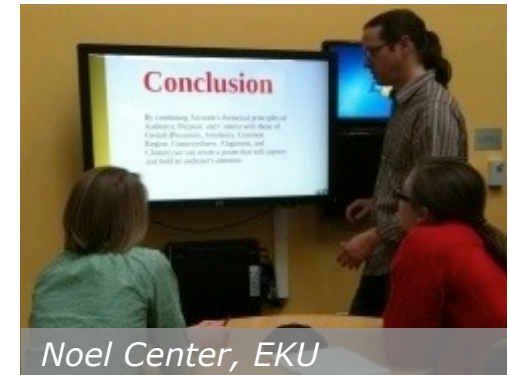
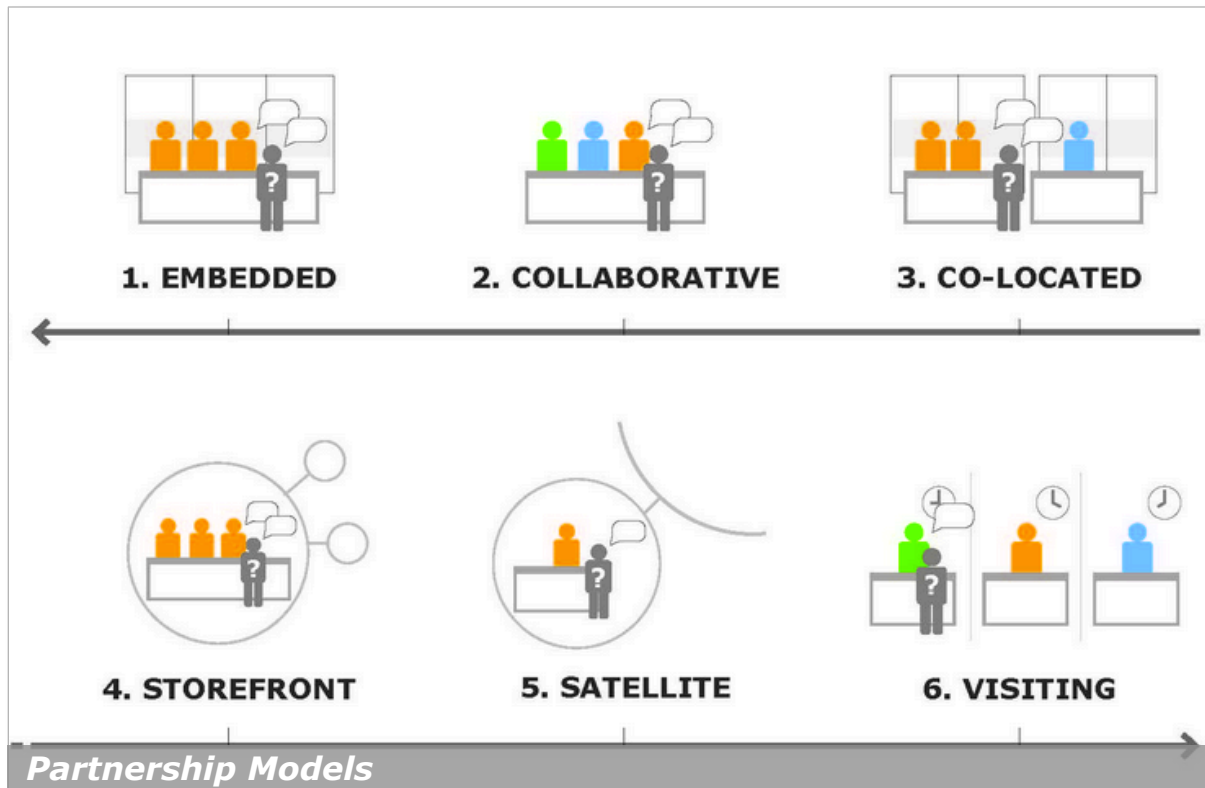


## Co-location / Integration



# embracing partnerships

*As magnetic places on campuses and in cities, libraries are great locations to bring together a suite of academic, administrative, and social services in a hub such as writing centers, tutoring, and jobs centers.*



# a new mindset

*Designing and operating a library that responds and adapts to user needs requires a shift in mindset to a user-centered approach and to the integrated thinking about spaces, services, and staffing.*

Conventional Thinking	User-Centered
Design the container and its contents	Design the activities and interactions
Design from institutional perspective	Design from user perspective
People will ask for whatever help they need	Proactive service uncovers needs
Use standards of what worked in the past	Invent new models, working with users
Focus on consistency, one-size-fits-all	Focus on personalization, responsiveness
Design and assessment are separated	Use same tools for design and assessment
Operational and Capital budgets separate	Operational and Capital budgets linked



# a new toolkit

brightspot, in partnership with NC State and AECOM, developed the learning space toolkit to help institutions and designers create and sustain exemplary, technology-rich informal learning spaces: [www.learningspacetoolkit.org](http://www.learningspacetoolkit.org)

## User Research Tools



## Use-Case Tool

Ideally used in a workshop setting with these parameters charted

Who	What	Why
User type/ Persona	Needs / Aspirations	Motivations
X User	Needs to... Aspires to...	Because... In order to...
Sample Undergraduates in X department	Need to create posters and videos for class projects	because the X depart now placing a strong emp improved communica

## Journey Map: *getting printing help*

	Pre-Service	Enter 11:30am	Walking,
Activities	Leave class with 3 hours before next class. Need work on. Checks what sandwiches are on sale at Hunt Cafe.	Enter library and head to cafe. Checks computer availability which shows 3rd floor Learning Commons not too busy.	Travel to 3rd floor Commons
Environment	EB 1	Cafe area, 1st floor.	Entry, walking p
Interaction	Checks phone. Walks down to Hunt.	Gets drink and sandwich from cafe. Watches ABOS.	Hands are full, h to swipe?

## Service Location Planner

Services	Integrated Service Point/Lmg Commons 1	Scholar's Commons	Quiet Reading Room	Curriculum Library	Creativity / Media Zone	Ref. Inf.
Ask Us! (Virtual Reference Center)						
Assistance with hardware - library's device	X			X	X	
Assistance with network access - patron's device	X					
Assistance with printing and copying	X			X		
Assistance with scanning	X				X	
Assistance with scholarly publishing		X				
Assistance with University-related questions	X					
Assistance with use of technology sandbox	X				X	
Check out devices	X				X	

Space Browser Home

Filter spaces by activity: Collaborate

## Space Browser

The Learning Space Toolkit enables you to envision needs for space, technology, and services and needs. The Space Types section describes the "building blocks" that make up technology-rich learning environments and their requirements for their successful design, construction, and support. Use this interactive tool to browse through a selection of archetypical spaces and neighborhoods on Space Type or Neighborhood or by activity above. Help us grow the Space Browser and contribute to the toolkit.

The Space Browser is still growing. If you'd like to suggest a space or neighborhood, please contact us.

## Browse Space Types



## Integration Blueprint

**Purpose:** A planning and operations tool that compiles information about activities and spaces.

### Instructions:

1. Gather information from other tools used within the toolkit and create a brief.
2. Once completed, look across the cells for alignment/conflict, duplications, or omissions.
3. Use this tool to verify design and operation of space meets intended goals, check for alignment, and make adjustments.

	Activities (from User Story Tool, Needs Assessment, and Personas)	(from Enclosure, Writing, Fixed, Adjustable, Glass, May in, Lecter, provide, Enclosure)
Presentation Practice Rooms	<ul style="list-style-type: none"> <li>Rehearse and review individual and group presentations</li> <li>Whiteboard discussions</li> <li>Spread out and/or pin-up documents</li> </ul>	
Group Study Rooms	<ul style="list-style-type: none"> <li>View content on screen</li> </ul>	

# **poll: design challenges**

*What's the biggest challenge in user-centered library design?*

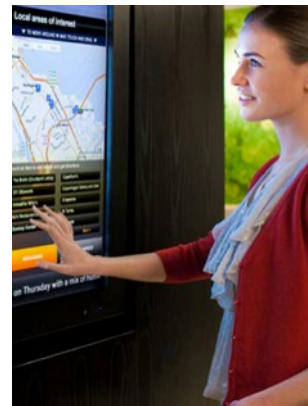
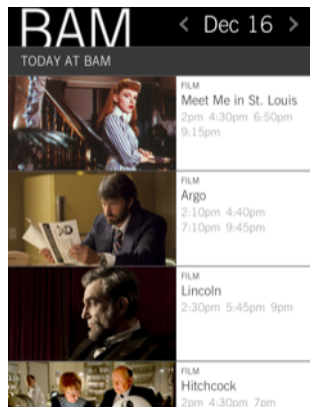
- A. Understanding user needs*
- B. Figuring out what services to offer and where/how to offer them*
- C. Finding good examples of spaces, services, or technologies*
- D. Integrating partner service providers*
- E. Planning holistically*



**understanding experiences**

# understanding experiences

*A user's experience is often looked at as their time in a building, which does not capture the interactions and activities that take place before and after their visit – on-site and online. The 5Es can help see the full picture.*



## Entice

How you get people to engage and/or visit the library and what happens before people "enter."

## Enter

What happens as the experience begins; such as how people get oriented, how people discover what's available.

## Engage

The interactions among people, technology, information, and environment which make up the core of the experience.

## Exit

How the experience ends and people exit a space, tool, platform or space.

## Extend

How the experience is extended after people exit – digitally and physically.

*Note: 5Es framework developed by Conifer Research*

# understanding users

NC STATE UNIVERSITY

*Personas are useful tools for synthesizing what you now about your users and creating hypothetical portraits of key user types, based on motivations and behaviors (more so than fixed demographics).*



## Larry Leadwell

Professor and Associate Head,  
Mechanical and Aerospace  
Engineering

*"Wait till you see this"*

### What's your work life like:

I have been focused on aerospace engineering, doing a lot of work for the space program. Since assuming department head role 7 years ago my duties have shifted to be more administrative, including serving on a lot of committees and working with colleagues in the department. I've also got a few grad students...

### How do you use technology?

As an engineer, I'm immersed in it all the time

### How do you use the library?

I rarely use the library because I can access all the materials online. But I enjoy having someplace to walk for coffee and just meet informally with people. I also like taking visitors there to showcase everything we are doing.

### About me:

- 50 years old
- Married, empty-nester
- Hobbies include camping and fishing
- Wolfpack Club member
- NCSU Alumni Club
- PhD, Mechanical Engineering
- Tenured, w/ 26 years NCSU

### My needs:

- Attend library events
- Turnkey videoconferencing
- Place to meet informally
- Impress visitors
- Bookable event space
- Food and drink
- Space to meet people outside my department

*\*Persona developed by NCSU  
libraries, condensed by brightspot*

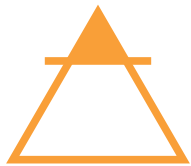
# journey mapping

*Journey maps illustrate how a persona would use / move through a space and/or service, describing the "touchpoints" where they interact and need support. Done for a variety of personas and times*

Entice	Enter	Engage	Exit	Extend
Isabel views an email link on the library homepage.	Clicks on the link and type in question.	Auto-response stating someone will contact them within 24hrs.	Reads email and is pleased with the response.	If further assistance is needed, contact information (phone, email or in-link) is provided.
<b>or</b> Views embedded link in Blackboard course to ask library a question.		Reference librarians receive message and reply with clarifying question.		Librarian provide links to tutorials.
		Emails back providing clarification.		Librarian adds to FAQ database for online grad students.
		Librarian responds with needed information.		Librarian logs info to library stats.

# creating experience models

*Experience models, created by synthesizing research data, can help to identify key moments in experiences as well as opportunities to better support them.*



## DISCOVERING

Finding the right information, content, people, and tools



## FOCUSING

Filtering information and identifying what's next



## GROWING

Mastering new skills and building relationships



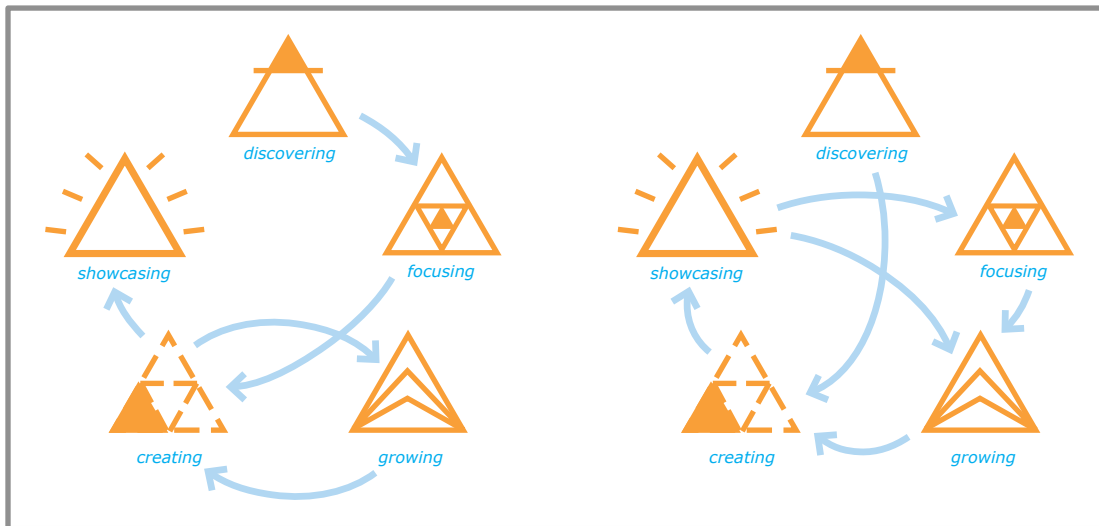
## CREATING

Expressing and applying ideas



## SHOWCASING

Testing and sharing back with the community



Outcomes included:

- Identifying an opportunity to better showcase and share work
- Service strategies to encourage users to engage with experts earlier
- Staff sub-groups to create new services that support key moments

# defining the future vision

*A successful project builds on internal and external research to define the future vision, often based on workshops with different stakeholders and the goals for the institution.*

## SFMOMA Vision

The SFMOMA expansion provides the museum the opportunity to redefine its relevance in the world of contemporary art, its civic value in the city of San Francisco, and its cultural value in the life of individuals. SFMOMA's vision to be Magnetic, Generous and Transformative should be attentive to a diverse population — local and global. SFMOMA should be a place that is comfortable for those familiar with, and those intimidated by art. For some, it will be a backdrop for a social experience. For others, it is about engaging directly with the art. SFMOMA should make an impact.





**spaces**

# browsing spaces by type/activity



*The space browser is enables you to search spaces by activity, space type or institution.*



[Space Browser Home](#)

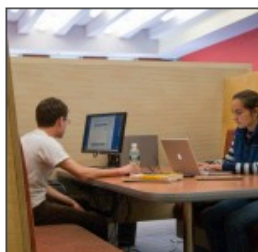
Filter spaces by activity: [Collaborate](#) [Create](#) [Focus](#) [Share](#) [Socialize](#)

## Space Browser

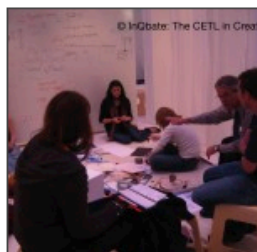
The Learning Space Toolkit enables you to envision needs for space, technology, and services and then plan for how best to meet those needs. The Space Types section describes the “building blocks” that make up technology-rich learning spaces in order to describe the requirements for their successful design, construction, and support.

Use this interactive tool to browse through a selection of archetypical spaces and neighborhoods of spaces. You can start browsing by clicking on Space Type or Neighborhood or by activity above. Help us grow the Space Browser and contribute your own examples.

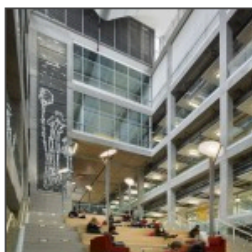
## Browse Space Types



**Booths**



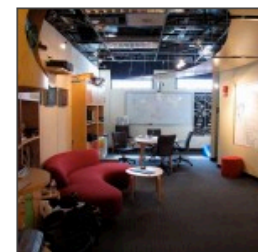
**Brainstorming Space**



**Connective Space**



**Digital Media Lab**

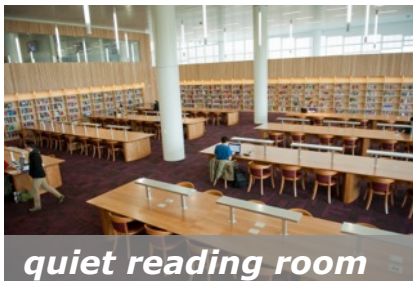
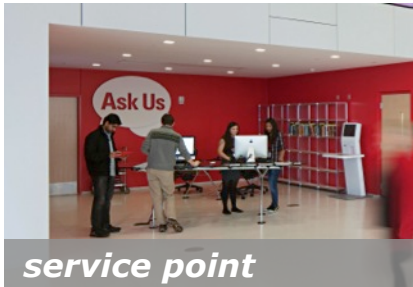


**Gaming Studio**

# developing a space palette

NC STATE UNIVERSITY

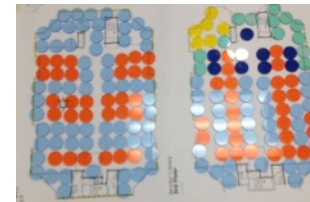
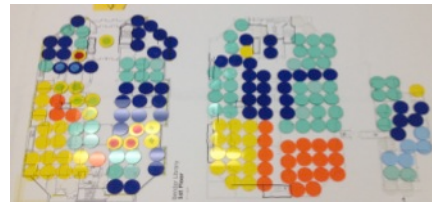
*A space palette defines the range of / variety in learning spaces designed to meet and adapt to user needs and accommodate diverse users activities.*





# defining blocking & stacking

*Interactive workshops with users and staff provide an opportunity to organize spaces on a floor ("blocking") and vertically ("stacking") and the participatory process enables real-time feedback and a user focus.*



## zoning diagrams

*A variety of spaces for students, faculty and staff are organized to make a range of activities, services, collections and technology available throughout the building.*

**Group study:**  
Bookable rooms on perimeter of lower level surround large open study space

**Lively study:**  
Located on LL and 1<sup>st</sup> floor near entry and main circulation paths

**Staff space:** Staff that work together and are student-facing are grouped near service area

**Café:** Provides food and informal study area near entry

**Service Area:** All services are centrally integrated for easy access and visibility

**Informal study:**  
Comfortable lounge seating is located along circulation paths

**Visible collections:**  
Collections remain accessible and visible on all floors

**Reading room:**  
offers quiet, inspiring study space with a view

**Silent study:**  
"neighborhoods" of individual study areas encourage silent, focused study

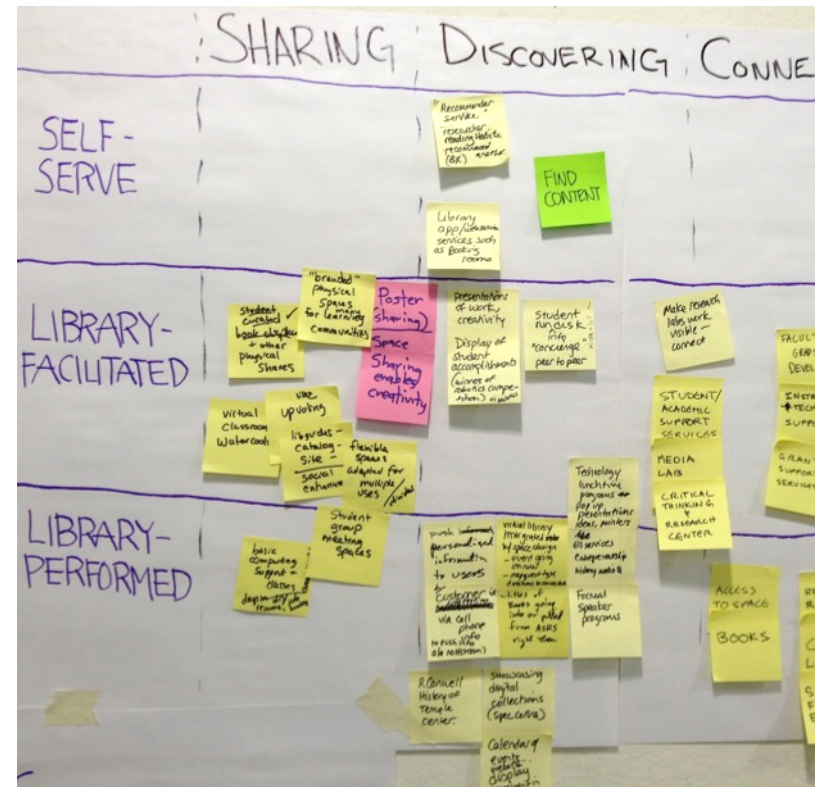
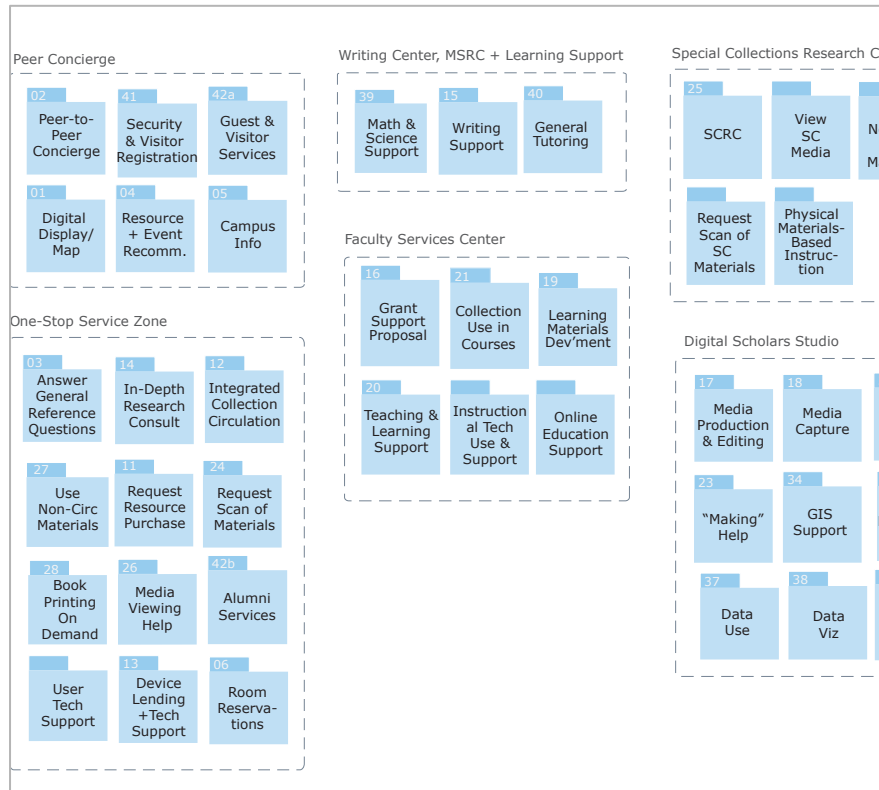


**User Space:** study, classrooms, event space  
**Staff Space:** offices, student-facing, service area  
**Collections:**  
**Support:** storage, etc.

**services**

# mapping the service portfolio

*Organizing the current / future service portfolio to see the distribution of where, by whom, and how services will be delivered can help identify organizational, technology, and space needs.*





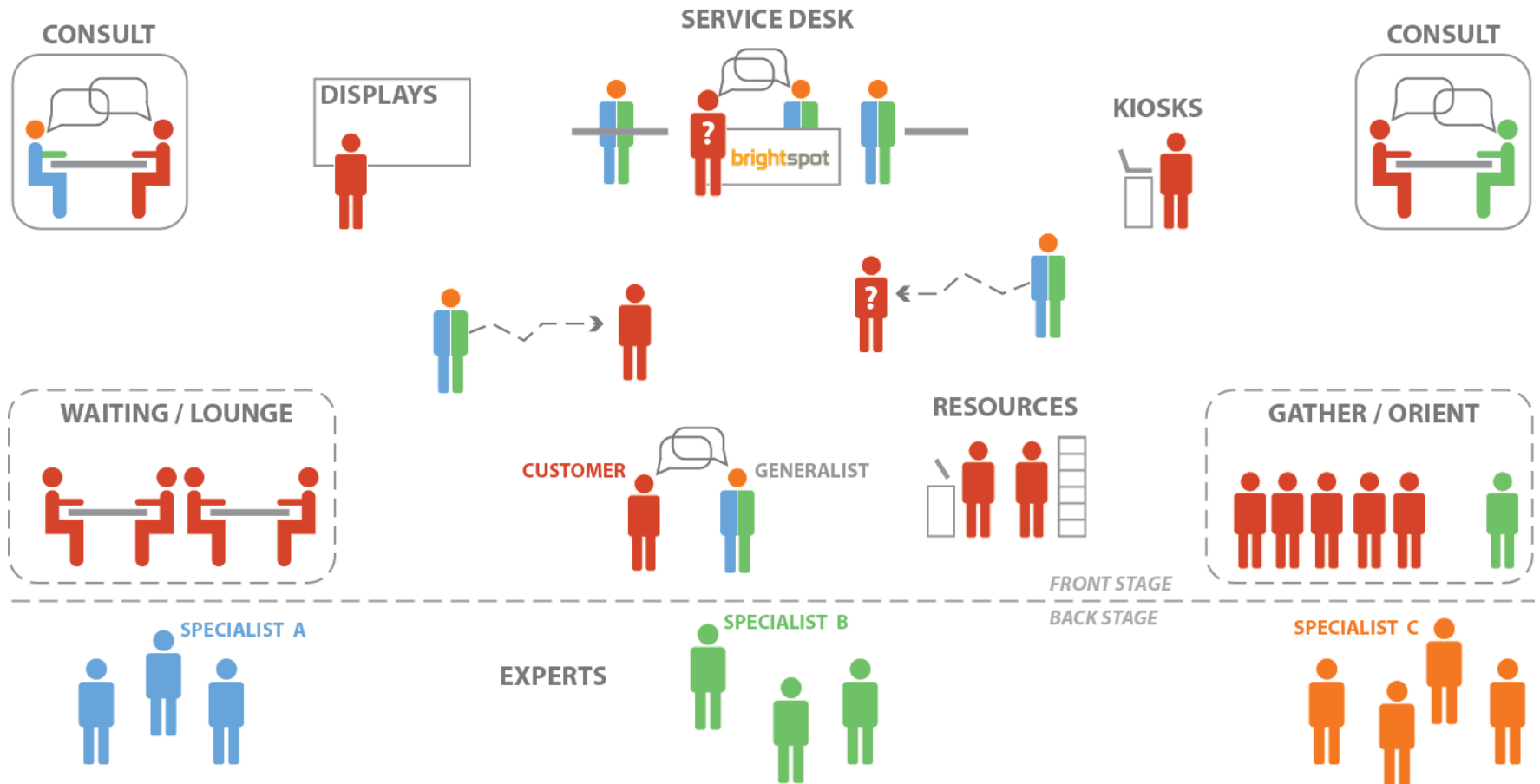
# planning service locations

*The service location planner in the Learning Space Toolkit can be used to determine WHAT services are offered WHERE and WHEN.*

Services	Integrated Service Point/	Learning Commons	Research Commons	Grad / Faculty Commons	Traditional Reading Room	Creativity / Media Zone	Reference and Info Literacy	Other?	Virtual Support
ILRC Group Room Reservations	X	X	X	X					X
Check out group study room resources	X	X	X	X					
Classrm scheduling (eg. auditorium)								Admin	
Multi-purpose room staging								Admin	
Long-term locker assignment				X					
Wayfinding	X	X	X	X	X	X	X		
Get food/drink				Vending				Food Court	
Pay/contest fines	X								
Claim a lost-and-found item	X								
Request/participate in a library tour	X						X	Admin	
Assistance with University-related questions	X	X	X						
Consultation regarding job opportunities	X	X	X						
Complaints/concerns/materials challenges	X	X	X					Admin	X
Curriculum change requests								Admin	
Pick-up/drop-off of ILL materials	X								
Check-out library resources, renew, etc.	X								
Recommend resources for purchase								Admin	X
Requests to purchase books/materials	X	X	X						X
Check out/return reserve items	X								

# designing service points

*Configuring service points requires understanding the components and their potential configurations. To determine these, you can visualize WHERE activities and interactions happen and map out future service points.*



# creating service blueprints

*Service blueprints document HOW you wish to provide a service/space, giving direction on front-line staff actions, behind-the-scenes staff, and support systems/infrastructure for each service channel.*

	<b><i>Embedded Librarian</i></b>	<b><i>Workshops / Group instruction</i></b>	<b><i>Individual Instruction</i></b>	<b><i>Special Events</i></b>	<b><i>Personal Librarian</i></b>	<b><i>Recruitment</i></b>
<b>Customer Actions</b> <i>line of interaction</i>	Contact librarian w/ Qs /requests	View ads, register, attend, give feedback	Request instruction / assistance	View ads, register, attend, participate	Request one-on-one service (qualified students)	Attend an event
<b>Front-line Staff Actions</b> <i>line of visibility</i>	Answer Qs and instigate connections; Suggest resources; Keep contact statistics	Teach workshop	Assist instructor	Create ads; Invite presenters; Schedule spaces and other resources;	Answer and instigate connections; Suggest resources; Keeps stats on contacts; Make appts	Present clear, concise info in variety of mediums (handouts, PPT, brochures, online access)
<b>Behind-the-Scenes Staff Actions</b> <i>line of internal interaction</i>	Keep resources accessible; Order, organize, access materials	Organize event; Advertise; Set up physical logistics	Keep resources accessible; Order, organize, access materials	Provide info via handouts, programs, or digital	Pre-qualify students for service; Keep resources accessible; Order and organize materials	Print required paperwork; Upload presentations to web site; Create / Order display / backdrop
<b>Support Processes and Systems</b>	Databases Contact stats	Contact stats Equipment maintenance	Database Contact stats	Equipment and resources	Database Stats Equipment and resources	Equipment and resources (TV, laptop, cables, table, etc)

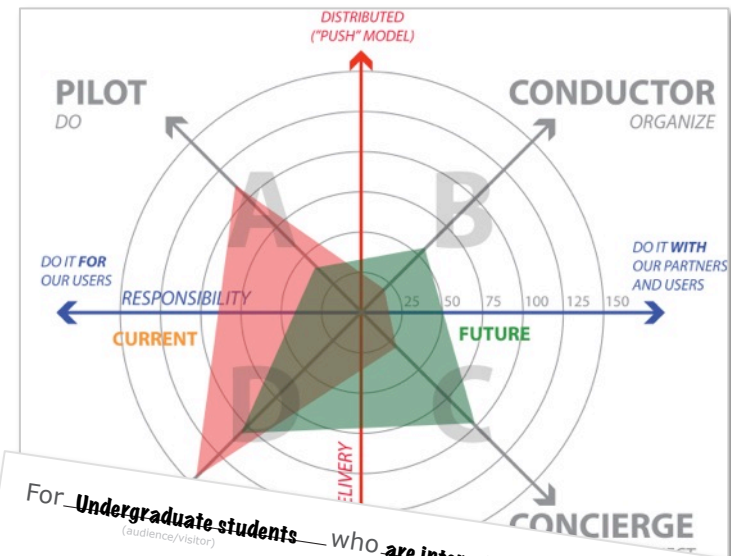
**staffing**

# developing the service philosophy

*A service philosophy provides high-level direction on WHY services should be delivered a certain way, guided by organizational values and informing how services will be delivered.*



*"We provide personable, efficient and knowledgeable services to faculty, staff and students to foster connections, create opportunities, and enable efficient and effective work."*



For Undergraduate students who are interested in international study,  
 we deliver information and resources with personalized details  
 that connects students to programs and funding opportunities.



# determining service levels

*Service levels provide a common language and expectations across provider areas as well as a way to set and align user expectations.*

	Transport	Reservation & Booking	Reception & Navigation	Room Set-up	Technology Support	Catering
<b>Level 1:</b> "Your on your own"	Online tool	Online tool	None	None	In-room guides, Phone Support	None
<b>Level 2:</b> "We'll get you started"	Online tool	Online tool	None	None	Remote multi-media support	Upon request
<b>Level 3:</b> "We'll help you along the way"	Phone Support	Phone Support	Welcome and Direct	Advance Set-up	On-demand Team, on-site	Set-up, with On-demand Team
<b>Level 4:</b> "We'll do it for you"	Door-to-Door Service	Dedicated Line	Guide you there	Advance Set-up, Check-in, and Adjust	Dedicated team, on-site	Set-up, with dedicated team

# designing referral models

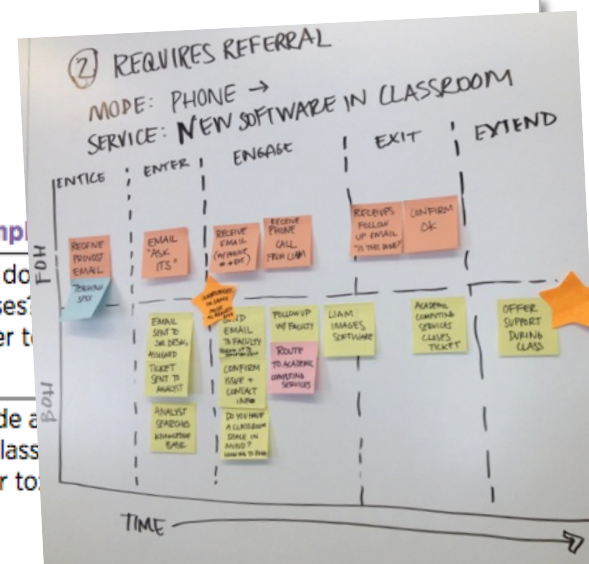


NEW YORK UNIVERSITY

*Referral models provide direction on when and how to refer user requests across providers and/or location along with best-practices and examples.*

## Piloting an Enhanced Service Model: Referrals Examples

Category	Steps to take	Example
"It's our service - I can help"	Listen to request. Look up resource. Ask: "Are you in front of a computer?" Send tutorial	How do I... Classes [refer to...]
"I know it's your service"	Listen to request. Look up in knowledge base. Offer options: send tutorial, warm transfer, make appt, or Invite to come in Create ticket and Refer to appropriate group	I made a... my class [refer to...]
"I know it's not ours, but I'm not sure whose it is"	Listen to request. Ask basic scoping questions (e.g.: Part of an academic review?) Check "cheat sheet" Look up in knowledge base Create ticket and Refer to appropriate group	I want to survey my class [refer to: CAT in part of academic review, otherwise refer to ATS]
"It don't know what 'It' is."	Listen to request. Search Knowledge Base - not there... Affirming response: "What an interesting project! - We'll get back to you right away." Ask: "What's the best way/time to reach you?" Create ticket and Refer to "Reference Team"	I am going to be in a remote rural location and I want to live capture field work via satellite [refer to: Reference Team]



# developing staffing models

Staffing models forecast how many staff, at what level, are needed to support each space/service.

You can work backwards from staffing / budgets to define services offerings or work forwards from service types and then iterate.

## Aligning staff support needs to space



## How will each space be served? & How will each staff be working?

Staff	Adam	Bernice	Hannah	Albert	Andrew	Amanda	Garry	Warren	Michael	Peter
Disciplines and Levels	L4	L3	L2	L1	L3	L1	L3	L2	L1	L1
Service Point	-	-	-	50%	-	75%	50%	50%	100%	100%
Group Study Room	-	-	-	25%	-	25%	-	-	-	-
Visualization Lab	-	-	50%	25%	50%	-	50%	50%	-	-
Technology Infrastructure	100%	100%	50%	-	50%	-	-	-	-	-

Hannah is going to balance her workload across 2 different spaces

the Central Service Point is going to be served by 6 employees, of which 2 will work full-time here

**summary**

# summary



**3. Design services in parallel with spaces, moving from what to where to when, to how of delivery.**

Services	Integrated Service Point/ Learning Commons 1	Learning Commons 2	Learning Commons 3	Graduate Faculty Commons
Reservations	x	x	x	x
Study room resources	x	x	x	x
... (eg. auditorium)				
... (eg. library tour)				
... (eg. job opportunities)				
... (eg. requests)				
ILL materials	x			
resources, renew, etc.	x			
resources for purchase (faculty)				
base books/materials	x	x	x	
reserve items	x			

**4. Determine staffing needed to support spaces and services, guided by user needs & values.**

Service Point	Staffing	Value
Group Study Room	-	-
Visualization Lab	-	5
Technology Infrastructure	100%	100%



# poll: design challenges

*Where do you think user-centered design can have the biggest impact?*

*A. Physical Space*

*B. Digital*

*C. Connecting Physical and Digital*

*D. Integrating spaces and the services offered within them*

*E. Other*

**Case Study:**  
**NC State Hunt Library**  
**Service Design**

# initial visioning

*The vision to be a user-centered technology incubator emerged from a series of workshops, exercises, and research.*



Power change  
Global position awe



Usable upward steps  
Beautiful



Unique and Different  
Signature Building



People  
Nature



Beauty  
Ambitious Goals



Chaotic, but with a  
sense of order



Campus Centerpiece  
A center building from  
inside, out



Nature & Design  
Peaceful; Reflection

## user research and engagement

*The user research and engagement process began by looking inward to learning from existing spaces and pilots, then was complemented by looking outward to other trends and examples, then engaged users and staff – quantitatively and qualitatively – in a participatory planning process.*

## Looking inward



## NCSU pre-furniture

## Looking outward



Google

## Participatory process



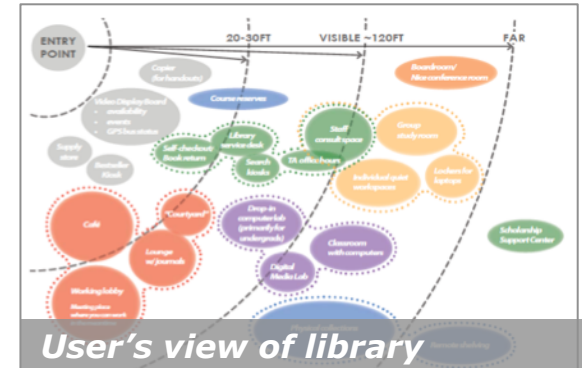
## Workshop



**NCSU pilot**

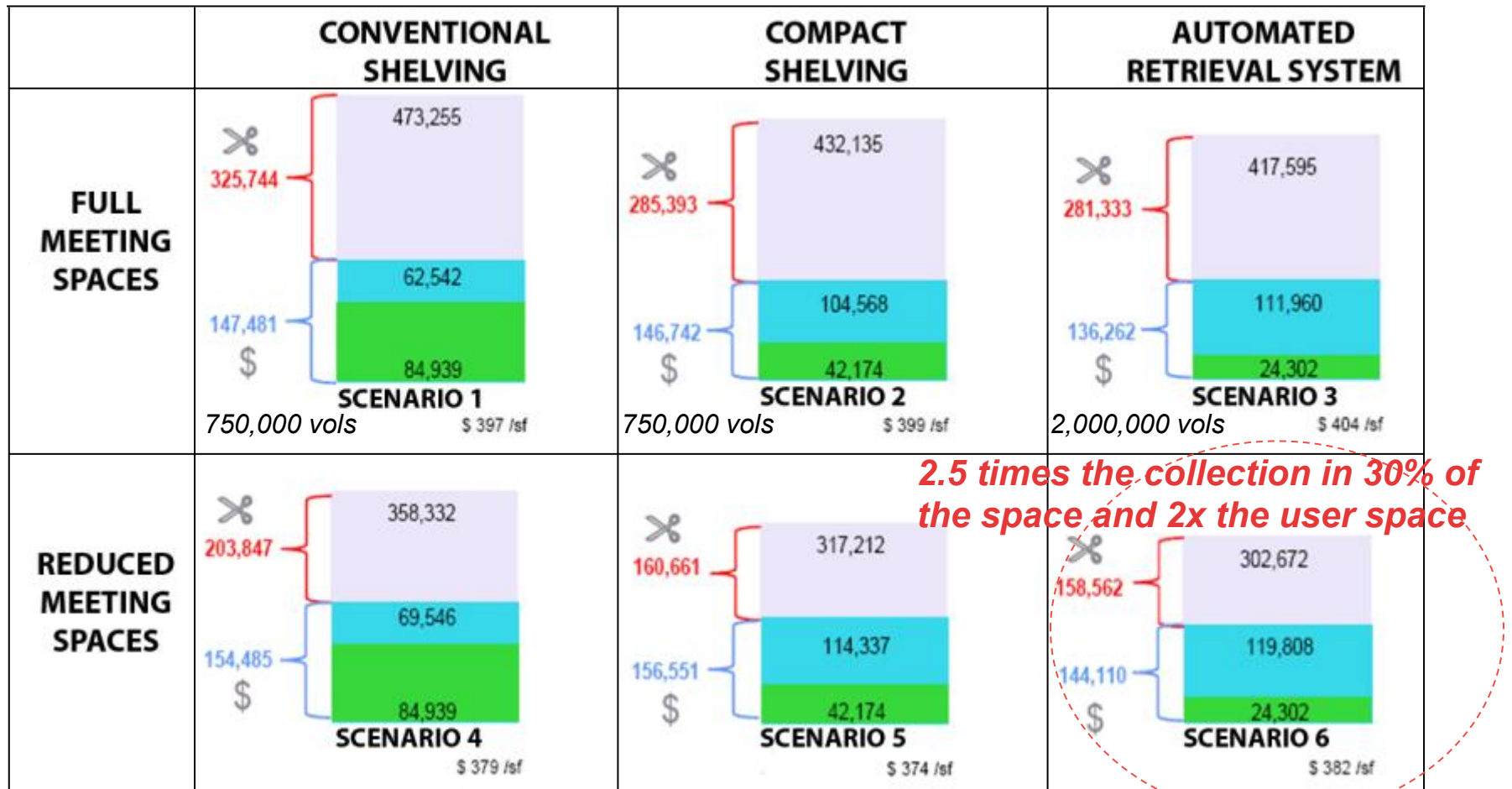


**U Sussex InQbate**



# collections strategy

*Densifying collections to maximize user space, based on a comparison of storage capacity, area, and costs*



Matrix by Snohetta, with Davis Langdon, DEGW and PBC+L



# service vision

*Developing the initial vision about what services are offered, at what kind and number of service points, and how those relate to user spaces, staff spaces, and collections.*

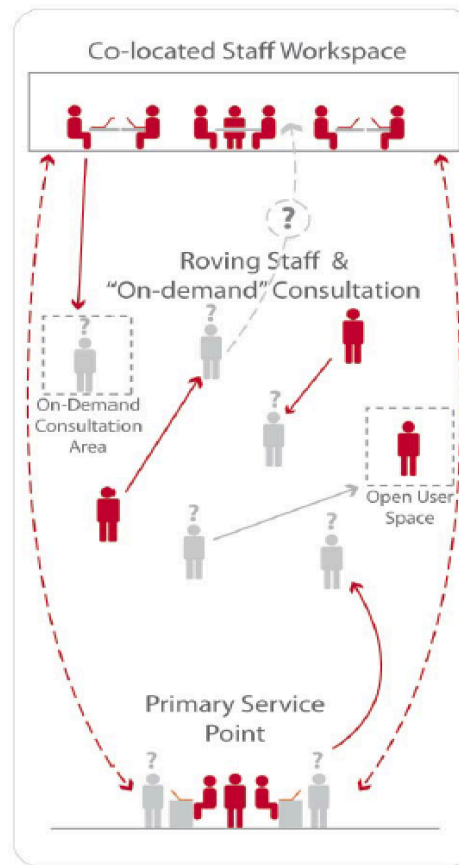
## LIBRARY SERVICE / SUPPORT

The strategies employed to provide services to users will shape the character and use of the library, and these services are influenced by changing staff roles, new user demands, and the design of the library itself. The work of librarians continues to shift from print-oriented processing to management of digital resources, offering knowledge navigation to users, combining subject-specific as well as technological expertise, and developing digital tools and resources to support research and scholarship. This means the library staff will need space that enables them to work together more effectively, to be more accessible to serve users better, and to be resilient in the face of the increasing challenges of new technologies and systems. Accordingly, the services within Hunt Library are driving by several key concepts:

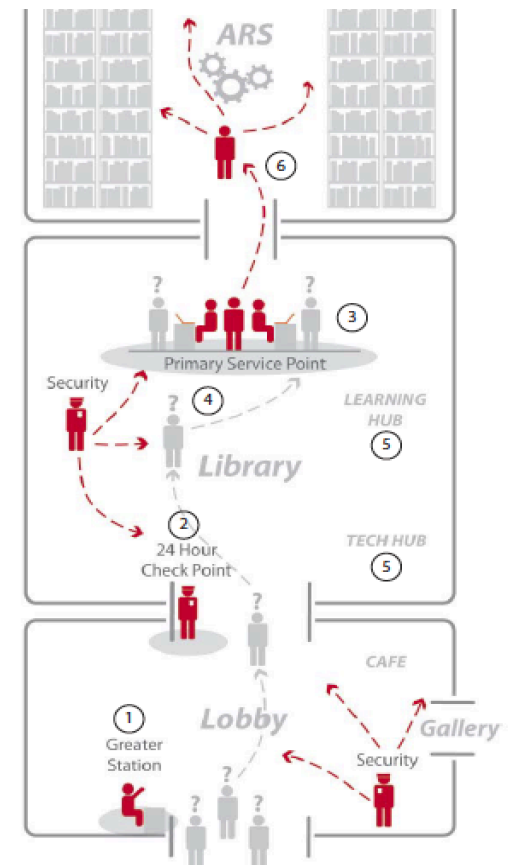
- A co-located staff so that all groups can work together in an efficient use of space that effectively meets their needs and expresses their culture
- An engaged, accessible staff that is mobile in order to provide services and support users where they are, and
- A central service point that is adjacent to the ARS and providing integrated services at one location so that users do not have to go to different places to get different kinds of services.

Locating all the library staff together will foster collaboration within and across library units and enable more effective work. Beyond this co-location, the specific functional relationships among the units are also an important consideration and they are indicated to the left. However, this will mean that in addition to services offered at the central service point, library staff will also need to be more mobile and utilize touch-down spaces within the user space or visibly situate themselves within user space (such as at a large table or within a prominent group

Service Vision Text



Service Model

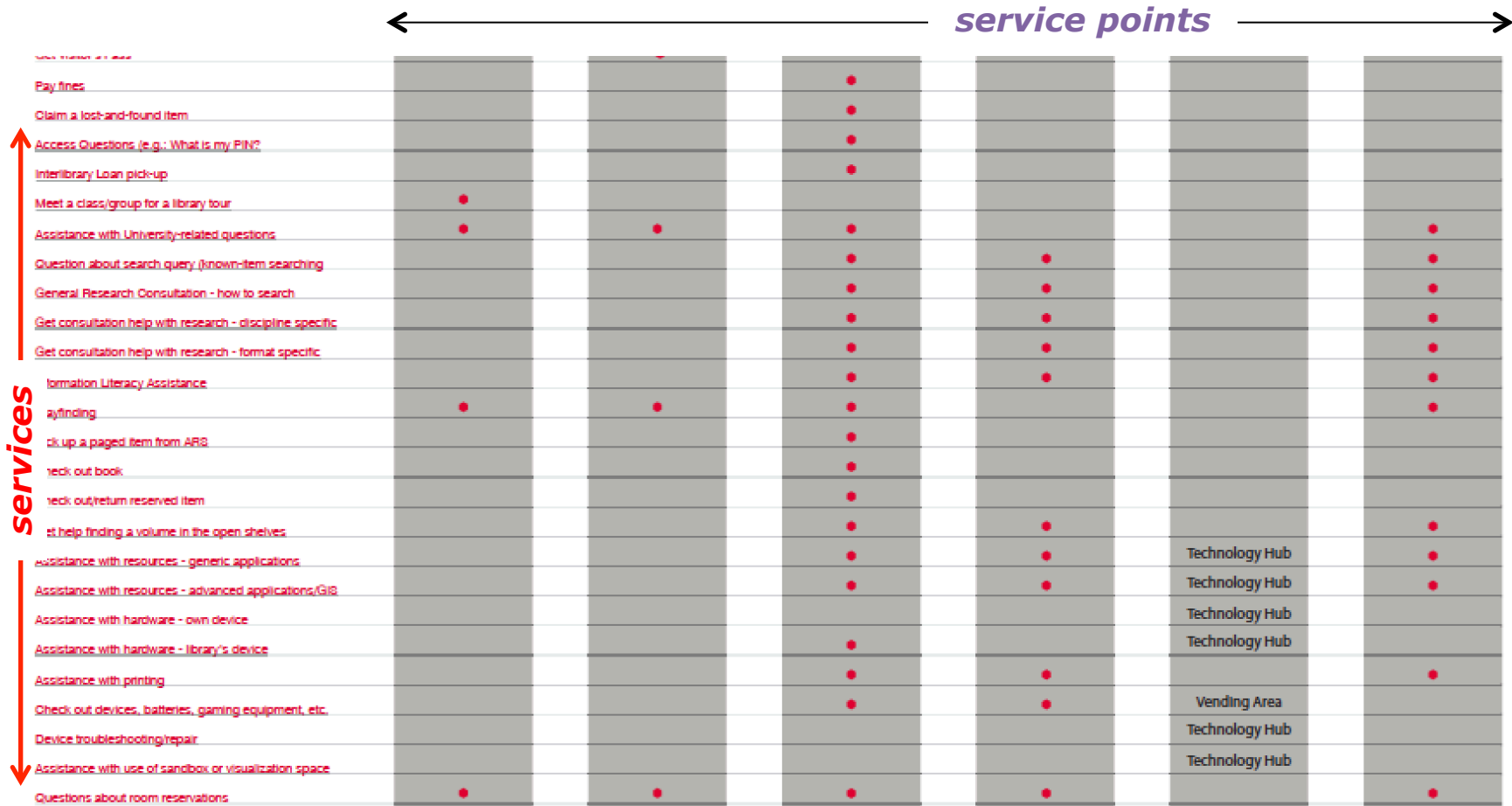


Service Points

*excerpts from DEGW/Snøhetta pre-design report*

# service portfolio and locations

*Determining preliminary sense of what services are offered where and when.*

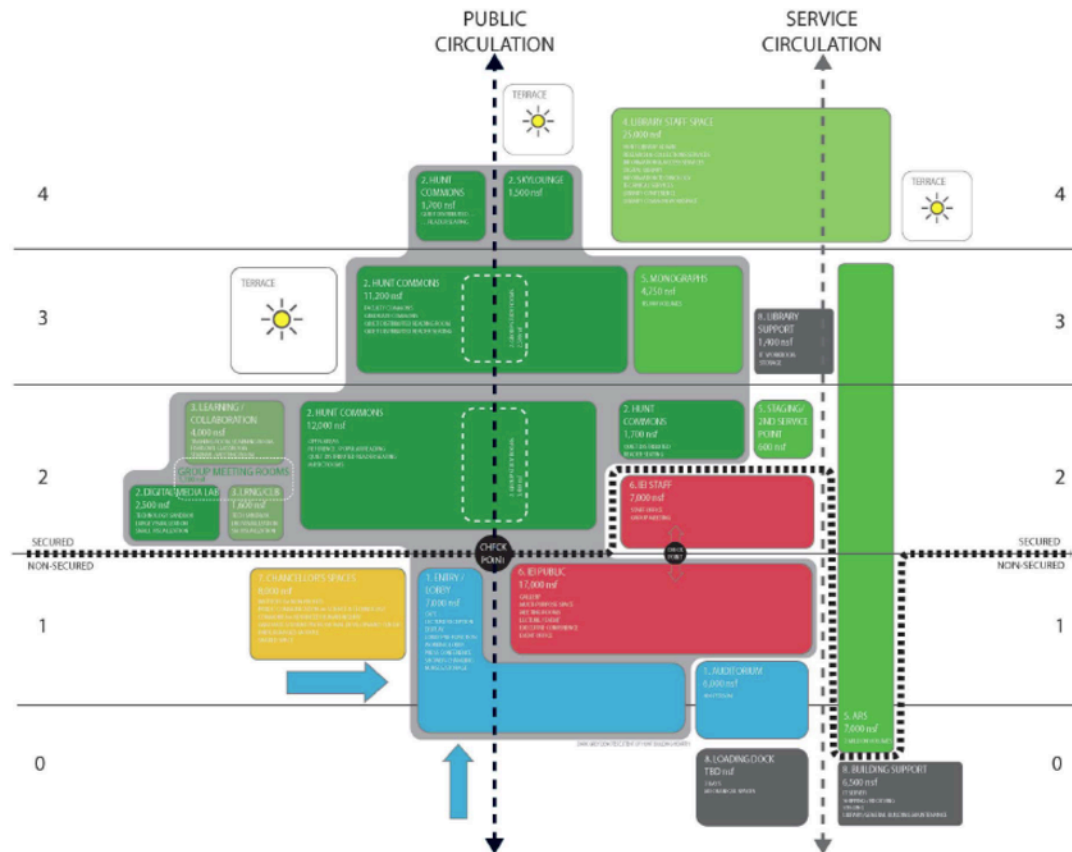


Hunt Library Services Matrix

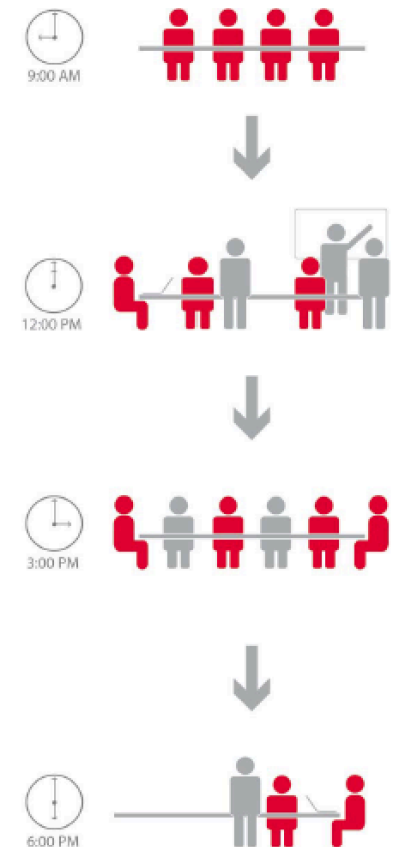
*excerpts from DEGW/Snøhetta pre-design report*

# operational concepts

*Determining preliminary sense of how building will be operated, where service points will be located, and how materials will flow.*



Adjacencies and stacking diagram

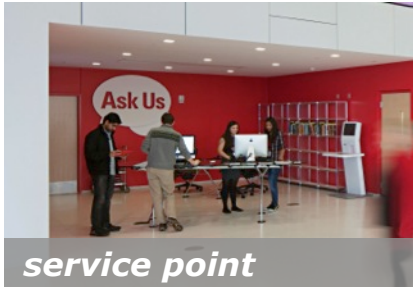


Changing space use over time

*excerpts from DEGW/Snøhetta pre-design report*

# space palette

*A variety of learning spaces designed to meet and adapt to user needs and accommodate diverse users activities.*





**construction...**





# service trends

*Considering external trends and benchmarks that may impact service design.*

## INTEGRATION



## STUDENT-SUPPORTED



## MOBILE SERVICES



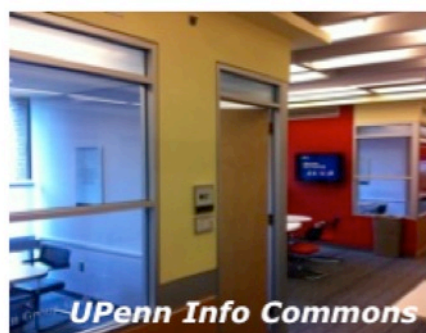
## PROGRAMMING



## SER-SPECIFIC



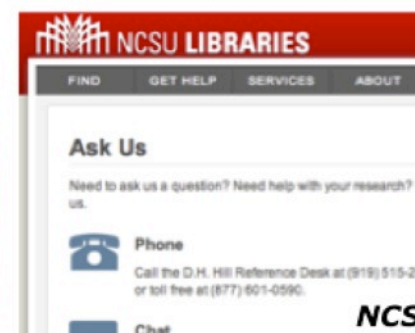
## HUBS FOR PARTNERS



## CONSORTIA



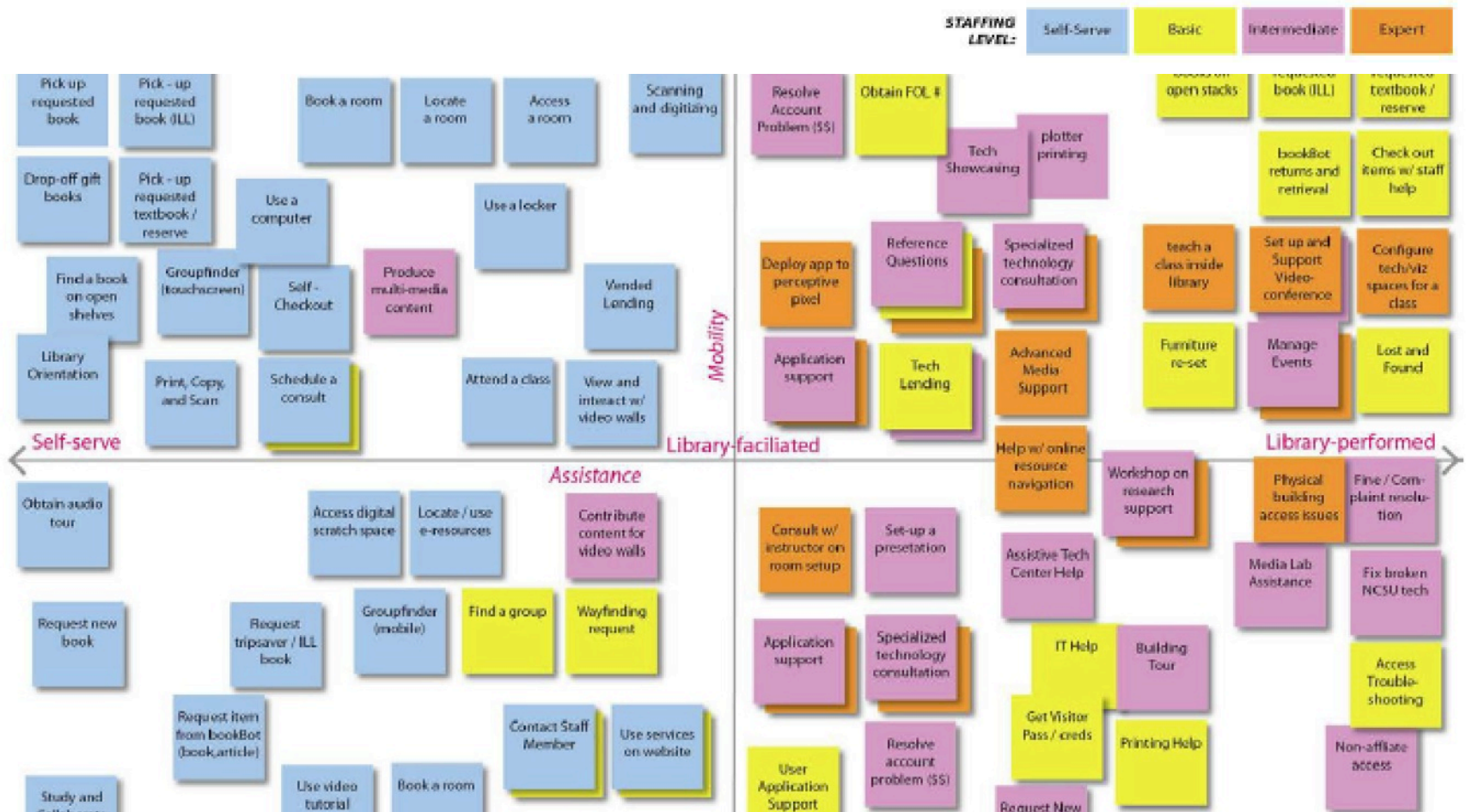
## VIRTUAL HELP



Library Service Trends

# service mapping

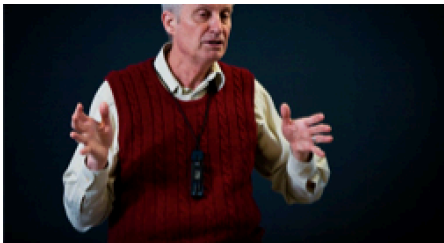
Mapping current and future services against key drivers.



Hunt Library Services Map

# personas

*Creating portraits of hypothetical users' motivations and behaviors, drawn from quantitative and qualitative user research.*



Professor and Associate Head,  
Mechanical and Aerospace  
Engineering

*"Wait till you see this"*

## **What's your work life like:**

I have been focused on aerospace engineering, doing a lot of work for the space program. Since assuming department head role 7 years ago my duties have shifted to be more administrative, including serving on a lot of committees and working with colleagues in the department. I've also got a few grad students...

## **How do you use technology?**

As an engineer, I'm immersed in it all the time

## **How do you use the library?**

I rarely use the library because I can access all the materials online. But I enjoy having someplace to walk for coffee and just meet informally with people. I also like taking visitors there to showcase

Persona created by NCSU Libraries

- 50 years old
- Married, empty-nester
- Hobbies include camping and fishing
- Wolfpack Club member
- NCSU Alumni Club
- PhD, Mechanical Engineering
- Tenured, w/ 26 years NCSU

## **My needs:**

- Attend library events
- Turnkey videoconferencing
- Place to meet informally
- Impress visitors
- Bookable event space
- Food and drink
- Space to meet people outside my department

*\*Persona developed by NCSU*

Reference: <http://learningspacetoolkit.org/services-and-support/personas-overview/>



# study tour

*Visiting facilities and organizations to learn form through first-hand experiences and discussions with providers and leadership.*



Museum of Science and Industry

The Museum of Science and Industry has an inspiring service model, influenced by theme parks and “guest experience” in which staff – often with improv skills – proactively engage with guests / visitors.



Poplar Creek Public Library

The Poplar Creek Public Library leverages self-service and does extensive programming within inspiring and themed spaces, from which lessons can be drawn for research libraries.



Xavier University Learning Commons

The Xavier Learning Commons features a co-located service point in which reference, circulation, and tech support are offered in the same place (and were piloted in current spaces prior to implementation).

# philosophy

*Developing the value statements and guiding principles to guide service delivery.*

*Through engagement with our users, we developed a service philosophy that guides everything we do and helps us make decisions in the best interest of our users and our institution.*



NCSU Libraries Service Philosophy

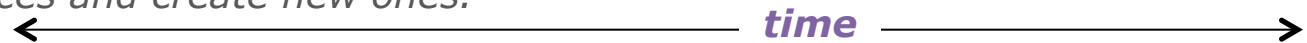
- We enable excellent user experiences and make hard things easy for the NC State community.
- We deliver the services you need, when and where you need them.
- We consider customer service everyone's responsibility. Each of us has an attitude of "I can help you" which ensures that nothing falls through the cracks.
- Each of us is engaged with the university's learning and research mission.
- Our approach is to fix today's problems and engineer innovative solutions for tomorrow.
- We provide learning spaces that foster creativity and achievement - you will find places for collaboration and for contemplation that allow you to complete your work in a safe and comfortable environment.

Reference: <http://learningspacetoolkit.org/services-and-support/serviceplot/>



# journey maps

Mapping current and future user journeys over time to identify "touchpoints" and both evaluate existing services and create new ones.



## Customer journey map – book/serial from bookBot, Hunt Pick-up

	Pre-Service	Place request	Enter library	Locate hold shelf	Retrieve item from hold shelf	Review items	Check items out	Post-service
<b>Activities</b>	User decides they need desired item.	User requests desired item.	User enters library.	User ascertains location of hold shelf.	User finds books on hold shelf and picks them up.	User examines items for correctness and to confirm whether they're interested in all items	User checks desired items out.	User leaves library or finds study space in building
<b>Environment</b>	In office or dorm room	In office or dorm room	Library entrance; library foyer	Library foyer; Hold shelf location; service point (possible)	Hold shelf	Anywhere in library, possibly near hold shelf	Self-checkout area or service point	Library exit or library seating/spaces
<b>Actions</b>	Finds and identifies desired item in OPAC – go to full record page.	Clicks on "request" button in full record page. Logs into patron account. Uses request interface to place request for item. Result screen confirms user selections and pickup instructions.	User enters through security turnstile.	Reads library signage; possible location interaction with staff	User browses hold shelf and identifies the books that are "theirs".	Examines books. Discards unwanted books on reshelve cart or book return drop.	User swipes card at self-checkout and book RFIDs are read and charged out; or, user hands items to staff member who does same and returns them to user.	Exits building or claims seat/space
<b>Touchpoints</b>	Personal computing device; Online catalog	Personal computing device; Online catalog; ILS	Security turnstile; User ID card; library signage	Library signage; service point	Hold shelf; Hold shelf items; Hold shelf kiosk for user to check hold status or hold shelf location	Books; book return bin	Books; RFID tags; ID card; self-checkout machine or staff workstation	Library exit; chairs, tables, study rooms, etc.
<b>Users</b>	Library user placing the request	Library user	Library user	Library user	Library user	Library user	Library user	Library user

Journey map of book request/retrieval

Reference: <http://learningspacetoolkit.org/services-and-support/journey-map-overview/>

# service portfolio

*Creating categories of services and forecasting future volume/demand for each.*

← *categories* →

		Service Categories				
		Building Access and Credentialing	Service Point and Mobile Services	Building Services and Security	Collection Access and Delivery	Reference and Research Consultation
<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-weight: bold; color: red; margin-right: 5px;">demand</div> <div style="flex-grow: 1;"> <div style="border-left: 1px solid red; height: 100px; margin-left: 5px;"></div> <div style="border-left: 1px solid red; height: 100px; margin-left: 5px;"></div> </div> </div>	Variable Services	Access to building during restricted times, Assistance with access-controlled spaces, Provide visitor's pass, Guest computing	Wayfinding, Circulation & Tech. Lending, Reference triage, Technology & computing support, Patron accounts, Event & space logistics, Plotter support, Dispatch (roving)	Furniture resets, Quick repairs, Building issues, Gen. maintenance (including bookBot),	bookBot retrieval, Reserves/Textbooks, Delivery of materials, Interlibrary Loan	Includes all-public facing reference activities such as consultations in person, Ask Us monitoring, etc.
	Constant Services		Staff presence at all times, Dispatch (in-person and IM)	Mailroom operations, Library van service, Liaison with Campus Facilities	Collection Maintenance, Open Shelves Management	Instruction, Workshops, Orientations, Web Services
	Notes	Core/24-hour	Core/24 hour	Business hours, except for security and emergencies	Core/24-hour	Basic/intermediate reference is Core

Hunt Library Services Matrix

# future demand

*Creating categories of services and forecasting future volume/demand for each.*

*To project staffing demand for our services, we first assumed a 40-hour week for constant services. For variable services, we reviewed transaction data and staff knowledge of typical service volumes to break the week into low, medium, and peak times. For the definitions of Low, Medium, and Peak, we assumed:*

- Low periods would typically be overnight, Saturdays, break times*
- Medium would typically be early mornings, evenings, and some summer hours*
- Peak would be typically be around mid-day.*

*We then forecasted the number of Low, Medium, and Peak hours in a typical week, for a 111-hour work as well as a "24/5" or 146-hour week.*

Hunt Library Staffing Model

## **Weekly Distribution of Low, Medium, and Peak** (Shows the distribution of hours per week)

### **Hours Assumed for Constant Services**

#### **Scenario I – Library Closes Nightly**

Day	Hours	# Hours	# Low	# Med	# Peak
Mon	7am - 12m	17	1	11	
Tues	7am - 12m	17	1	11	
Weds	7am - 12m	17	1	11	
Thurs	7am - 12m	17	1	11	
Friday	7am - 10pm	15	9	6	
Saturday	9am - 10pm	13	13	0	
Sunday	9am - 12m	15	6	9	
Totals		111	32	59	

#### **Scenario II- "24/5"**

Day	Hours	# Hours	# Low	# Med	# Peak
Mon	12m - 12m	24	7	12	
Tues	12m - 12m	24	7	12	
Weds	12m - 12m	24	7	12	

# service blueprint

*Determining how services will be offered, providing direction across delivery channels and guiding frontline staff, behind-the-scenes staff, and infrastructure.*

← **delivery channels** →

## service blueprint – conferencing and collaboration

	Web/Kiosk	Service Point/Call Center	Presentation Spaces	Group Studies	Teaching Spaces (T&V, Creativity, Seminar)	Documentation & Tutorials
<b>Physical Evidence or Communication Channels</b>	<ul style="list-style-type: none"> <li>Web site and online scheduling system</li> <li>Physical kiosk touch screens with reservation system</li> </ul>	<ul style="list-style-type: none"> <li>Service people</li> <li>Bookable equipment for checkout</li> </ul>	<ul style="list-style-type: none"> <li>Immersion Theater, Gaming, Presentation Practice rooms</li> <li>Mobile video cart</li> <li>Call buttons in spaces for reporting problems / asking for help</li> </ul>	<ul style="list-style-type: none"> <li>Small, medium, and large group studies</li> <li>Light weight conferencing equipment</li> <li>Software</li> </ul>	<ul style="list-style-type: none"> <li>Teaching and Viz, Creativity Studio, Video Seminar Room</li> <li>HD Conferencing Equipment</li> <li>Software</li> <li>Call buttons in spaces for reporting problems / asking for help</li> </ul>	<ul style="list-style-type: none"> <li>Use policies</li> <li>User tutorials for connecting and capturing content</li> <li>Technical documentation on capabilities</li> </ul>
<b>Customer Actions (Journey map)</b>	<ul style="list-style-type: none"> <li>View options for conferencing</li> <li>View/participate in live or recorded content</li> <li>Schedule a room and conferencing technology, request video cart/equipment</li> <li>View schedule of activities</li> </ul>	<ul style="list-style-type: none"> <li>Assistance with booking room or choosing technology</li> <li>Checkout auxiliary equipment</li> <li>Wayfinding</li> <li>Get assistance with conferencing problems</li> </ul>	<ul style="list-style-type: none"> <li>Capture a presentation, conference, or event, save to personal device or personal space</li> <li>Broadcast to overflow space within library</li> <li>Broadcast web stream to remote participants</li> <li>Request mobile cart for video conference</li> </ul>	<ul style="list-style-type: none"> <li>Start up web video chat (eg, Skype)</li> <li>Start up WebEx collaboration, record session</li> <li>Start or join an audio conference?</li> <li>Cloud-based collaboration</li> <li>Share multiple laptops to large screen/s</li> </ul>	<ul style="list-style-type: none"> <li>Capture a presentation, conference, or event, save to cloud/MediaSite</li> <li>Broadcast to overflow spaces or remote viewers</li> <li>Start HD video or web video conference</li> <li>Start or join voice conference</li> <li>Start up WebEx collaboration, record session</li> <li>TeamSpot multi-user collaboration</li> </ul>	<ul style="list-style-type: none"> <li>Access documentation and tutorials</li> <li>Ask questions related to policies and procedures</li> </ul>
<b>Front-line Staff (Public services)</b>	<ul style="list-style-type: none"> <li>Respond to requests for cart/equipment and take it to room</li> <li>Respond to help requests and setup requests</li> <li>Schedule assistance for users doing conference &amp; collaboration</li> <li>Maintain marketing &amp; outreach related to collaboration</li> </ul>	<ul style="list-style-type: none"> <li>Assist with booking issues</li> <li>Manage tickets from scheduling system for setup &amp; breakdown of activities</li> <li>Tier I troubleshooting of connection issues</li> <li>Check out auxiliary tech items /carts</li> </ul>	<ul style="list-style-type: none"> <li>Assist with booking issues</li> <li>Respond to tickets from scheduling system for setup &amp; breakdown of activities</li> <li>Tier I troubleshooting of connection issues</li> <li>Deliver auxiliary tech items /carts</li> </ul>	<ul style="list-style-type: none"> <li>Assist with booking issues</li> <li>Respond to tickets from scheduling system for setup &amp; breakdown of activities</li> <li>Tier I troubleshooting of connection issues</li> <li>Deliver auxiliary tech items /carts</li> </ul>	<ul style="list-style-type: none"> <li>Assist with booking issues</li> <li>Respond to tickets from scheduling system for setup &amp; breakdown of activities</li> <li>Tier I troubleshooting of connection issues</li> <li>Deliver auxiliary tech items /carts</li> <li>Basic technology reset</li> </ul>	<ul style="list-style-type: none"> <li>Maintain policies and procedures</li> <li>Create tutorials</li> </ul>
<b>Behind the Scenes (IT and Facilities staff)</b>	<ul style="list-style-type: none"> <li>Maintain scheduling and request systems</li> </ul>	<ul style="list-style-type: none"> <li>Respond to tickets escalated from Tier I service staff for troubleshooting</li> <li>Assist on-call for complicated setups</li> </ul>	<ul style="list-style-type: none"> <li>Tier II and Tier III support of equipment and connection issues</li> <li>Support for post-production problems with captured content</li> </ul>	<ul style="list-style-type: none"> <li>Tier II and Tier III support of equipment and connection issues</li> <li>Support for post-production problems with captured content</li> </ul>	<ul style="list-style-type: none"> <li>Custom or specialized conferencing &amp; collab setups</li> <li>Tier II and Tier III support of equipment and connection issues</li> <li>Furniture resets</li> <li>Complex technology resets</li> <li>Support for post-production problems with captured content</li> </ul>	<ul style="list-style-type: none"> <li>Maintain portal for tutorials</li> </ul>
<b>Support and Equipment</b>			<ul style="list-style-type: none"> <li>Mobile video conference cart</li> </ul>	<ul style="list-style-type: none"> <li>TB Room?</li> </ul>	<ul style="list-style-type: none"> <li>Video conferencing software</li> </ul>	

Service Blueprint for Conferencing & Collaboration Reference: <http://learningspacetoolkit.org/services-and-support/service-blueprint/>



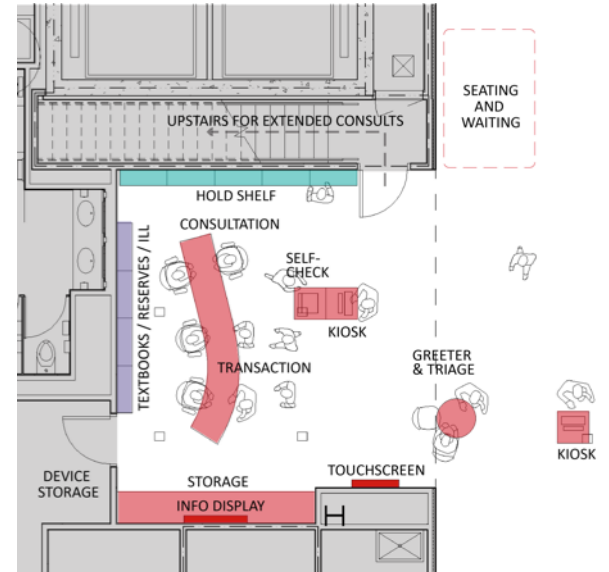


# prototyping

*Simulating concepts and testing them through tours, discussions, role-play, and use.*



Hunt Library Service Point Prototyping Workshop



# implementation and improvement

*Putting service design into practice, establishing assessment criteria, and enabling continuous improvement*



Hunt Library Service Point (Design: Snøhetta, PBC+L)

# thank you!

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