Excerpt from:

NCSU Libraries
Service and Staffing Model Planning Final Report
The *ad hoc* Service Model Planning Group was charged in spring 2011 to develop a user-focused service model plan for the Hunt Library that is adaptable to multiple scenarios based on use patterns and resource levels.

At the same time, the *ad hoc* Staffing Model Planning Group was charged to develop a plan to align staff positions and skills with operational and service functions across all library locations.

The groups worked from a set of *assumptions and constraints*:

- The resource base of permanent positions to staff the Hunt Library is the current (FY11) base (assumes no cuts and no new positions; assumes vacant positions will be considered for reallocation).
- The Hunt Library will have one fixed, continuously staffed service location.
- The Hunt Library will contain a bookBot housing 2 million volumes, and materials will be delivered to campus library locations for patrons (with a possible option for campus mail delivery to faculty offices).
- Funds are available for new student assistant positions, specifically for the support of high-technology spaces in the Hunt Library.
- Travel between North Campus (including the D. H. Hill Library) and the Hunt Library requires a minimum of 30 minutes each way, given current options with Wolfline bus service, parking, etc., and will be a factor in staffing and patron demand for operating hours at the Hunt Library.
- The schedule of hours for the Hunt Library (as well as ability to sustain the current 24/5 schedule at D. H. Hill) will depend upon available resources and campus factors including transportation and security.
- The Hunt Library is both a *technology incubator* and a *service incubator* in which our users help us continue to improve and fine-tune our services after we occupy the building.
trends with impact

As the library looks to the future, we are addressing several major trends that affect our users’ expectations. These include:

1. INTEGRATION: Libraries are increasingly creating integrated service points that bring together circulation, reference, and technology support services for the convenience of users and efficiency of staffing.

2. STUDENT SUPPORT: Learning spaces are being supported by student workers who can assist students as peers through consultations, training sessions, and troubleshooting within student-run spaces.

3. MOBILE and SELF-SERVICE: Libraries are providing services in a more mobile and proactive way, roving within the space (and around campus) to assist users and using technology to enable them to serve themselves both inside and beyond the library building. This is often more convenient and efficient for both users and staff, freeing up front-line staff to be less transactional and more consultative. However, more time and infrastructure is needed behind the scenes.

4. HUBS FOR PARTNERS: As magnetic places on campus, libraries are excellent locations to bring together a suite of academic services in a hub.

5. ACTIVE EVENT PROGRAMMING: Rather than focus only on the furniture and technology within a learning space, organizations are actively programming the spaces to build knowledge, skills, and community.

6. CONSORTIAL COLLECTIONS: Libraries are collaborating with other organizations to develop and deliver balanced collections across institutions and enable focusing on the unique and special items of each.

7. VIRTUAL SUPPORT: As users expect information and support anytime, anywhere, libraries and companies are providing support through new channels, with time-shifted partners, and through crowd-sourcing.
key service and staffing findings

Through our conversations, research, quantitative modeling, and prototyping, we have recognized the following about our services and staffing at the Hunt Library (see complete list on pp. 53, 56-57).

• Library service delivery may take place at fixed or mobile locations and may be either self-serve or mediated. We recognize that user needs and preferences vary across these dimensions, and it is our goal to place staff in roles that maximize both quality and efficiency, offering self-service options where feasible.

• The Hunt Library service model is an opportunity to reduce the emphasis on staff based at desks. Public service staff will have shifts when they are on call or actively roving.

• Some differences in services among library locations are inevitable, but philosophy, policy, and quality of service should be consistent.

• Facilitating the desired user experience is as much a function of technology, systems, infrastructure, and support behind the scenes as it is the work of front-line staff. Our organizational structure and training should facilitate this integration.

• The Hunt Library will require support activities with which we do not have experience. We will need to provide excellent training for staff and student assistants that emphasizes judgment, improvisational problem solving, and flexibility.

• Real-time staff communications across spaces and buildings will be critical.

• Existing position classifications can be used to staff the Hunt Library: Library Technician and Library Specialist; Technical Support positions; Programmers; Librarians; and student and graduate student assistants.

• Excellent customer service depends as much upon interpersonal and public service skills as task knowledge. Staff assignments should be based upon all factors.

• Recruitment, training, and management of student assistants will constitute significant ongoing effort, and their role is central to the user experience and “student ownership” feel that should characterize the Hunt Library.
service recommendations

Through analysis of existing services, projection of future needs, and hands-on activities designing the service model and the staffing to support it, our recommendations are:

• Maintain the current 24x5 schedule at the D.H. Hill Library, and offer a schedule at Hunt as follows: Monday–Thursday, 7am – midnight; Friday, 7am – 10pm; Saturday 9am-10pm; Sunday 9am- midnight. *

• Restrict the use of the Hunt Library to NCSU-affiliated users starting at a designated time in the evening. Require users to swipe campus ID to enter during those hours (no security staff and no “exception” process). *

• When the Hunt Library opens, do not check the credentials of users/visitors except during restricted hours (as above). *

• Create a position and organizational structure around the new focus on the user experience, to include responsibility for the service point, library web services, mobile/roaming services and “peer-to-peer” services in high-tech spaces.

• Infuse the new Service Philosophy (p. 24) in the organizational culture through training, recruitment, and performance management.

• Create new student assistant positions to provide services in the high-tech spaces (Teaching and Visualization lab, Creativity Studio, Gaming, Immersion Theater). Engage with the colleges (particularly the College of Engineering) to identify and select students.

• Conduct outreach to and partner with faculty and others regarding multi-disciplinary content for the high-tech spaces and display walls and for the library collection.

• Offer self-service options where feasible, e.g., vended laptop lending and an open hold shelf within the service point area for materials other than reserves and textbooks.

• Provide a concierge function at the service point to welcome users, triage and solve problems, and summon expert help.

• Create a way to signal for help and receive it either virtually or physically at a meeting point (e.g., “meet me spot”) to complement the central service point.

* These recommendations require consultation with the campus community and university administration.
service recommendations (cont’d)

Through analysis of existing services, projection of future needs, and hands-on activities designing the service model and the staffing to support it, our recommendations are:

- Implement an integrated patron communication and response system for the D. H. Hill and Hunt libraries, and branch libraries where applicable (e.g., telephone, chat, email reference service).

- Prioritize information technology resources to support innovative tools and spaces, and to enable the automation of processes.

- Bundle services for user convenience and efficiency, e.g., requesting technology lending or consultation when reserving a room.

- Do not staff the Technology Showcase on a continuous basis – activate as needed for activities such as demonstrations or orientation to the Technology Lending Service.

- Charge a group to create a program for visitors to tour the facility with minimal disruption for users.

- Continue to assess outside factors that affect Hunt Library service needs and user environment, e.g., bus schedules, food options, campus security.

- Assess, improve, and redefine services continuously, in consultation with users.
staffing recommendations

Through analysis of existing services, projection of future needs, and hands-on activities designing the service model and the staffing to support it, our recommendations are:

- Provide up to 26 FTE permanent staff for the Hunt Library to meet the recommended schedule (see p. 7) by transferring current staff and reallocating vacant positions (see p. 10).
- If resources are not sufficient to provide the 26 recommended positions, examine the service categories and associated effort across the Libraries, along with the operating schedule, for potential adjustments.
- Develop a service point schedule for the Hunt Library that handles surges in demand using real-time communications to summon staff to service areas, and roving staff assignments.
- Revise student assistant pay grades to compensate for higher levels of responsibility in high-tech spaces or for supervision.
- Reallocate the base wages budget across the Libraries to reflect decreasing demand at D. H. Hill (circulation, shelving, services) once Hunt comes online.
- Develop a sustainable recruitment, training, and retention program that will focus on meeting our increased reliance on student staffing.
- Determine staff schedule, training, and location(s) for integrated patron communication system.
- Move technical functions from public services to back-of-house where advantageous and appropriate to existing skill sets, e.g., reserve records processing.
- Provide staff with skills to support new technology-rich spaces and associated services.
- Provide professional customer service training for public service staff, using a “train the trainer” approach so this can be sustained internally, especially given turnover of students.
The NCSU Libraries is committed to offering an unparalleled user experience at the Hunt Library characterized by quality, creativity, and attentiveness to student and faculty needs, and to maintaining this level of service across all library locations. The Hunt Library has been designed with one primary walk-up service point, complemented by flexible, mobile services available on demand.

The objective for the project was to develop the service model for the Hunt Library and overall staffing models for the NCSU Libraries in order to plan for the Libraries’ future services and operation, prepare for opening in terms of staff training and organization, and enable ongoing assessment and refinement of services and staffing.

The planning groups used a business model approach and developed several scenarios for different use patterns and resource levels. They also considered the role of student assistants in each service or function; staff needs for training/development to support new services, roles, and technologies; scenarios for hours of operation at each location and associated shift schedules; and the possibility of certain positions spending time in multiple locations during a typical week.

The process was iterative so that group members could build knowledge and skills in service design with ideas tested/prototyped/piloted along the way. It also emphasized looking not only at precedents and examples within the library world but also beyond it to insights from other fields and environments.

The project tasks included review of staffing and service strategy; review of data on service transactions; development of ad hoc personas from staff knowledge of the user base; creation of journey maps for those personas using spaces/services; creating and refining service blueprints for core and/or new service areas; conducting prototyping exercises to test ideas; and finally developing a staffing resource model to estimate resources needed by level for each service category.
schedule and process

The planning process was iterative, scheduled around a workshop every two months, with work by NCSU in-between, advised by brightspot. Along the way, as service and staffing concepts developed, input was gathered from the broader staff and leadership. Prototyping of concepts began in Fall 2011 and will continue through 2012.

<table>
<thead>
<tr>
<th>Activity</th>
<th>2011</th>
<th>2012</th>
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<tbody>
<tr>
<td></td>
<td>April</td>
<td>May</td>
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<tr>
<td>Kick-off</td>
<td></td>
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<tr>
<td>Analysis</td>
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<tr>
<td>Service Development</td>
<td></td>
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<tr>
<td>Prototype Development</td>
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<tr>
<td>Refinement and Prototyping</td>
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<tr>
<td>Tool/System Development</td>
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<tr>
<td>Final Report / Recommendations</td>
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<tr>
<td>Share with Leaders and Staff</td>
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<td>Staff Assignments</td>
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<td>Training</td>
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<tr>
<td>Collection ingest to bookBot</td>
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<td></td>
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<tr>
<td>Rehearse &amp; configure at Hunt</td>
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</table>
The service and staffing models were developed using service design tools in conjunction with calculations to estimate staff time, and using analysis of existing usage statistics such as circulation of books, journals, and devices as well as reference consultations.

The service design tools enabled NCSU to articulate a service vision and philosophy, to create personas that represent key types of users (especially for the Hunt Library), map the journeys of these personas through space and services, create service blueprints for each core service, and prototype new ways of doing things.
The 1,000-acre Centennial Campus is home to university departments and centers, as well as corporate, government, and industrial partners. The campus has been under development since 1987, but has seen the most significant growth in the last decade. The College of Textiles was the first college to be located on Centennial, moving into a four-building complex in 1991. This College is made up of two departments, with 50 faculty. The College of Engineering, with nine departments and 333 faculty, has been moving over in stages since 2004. At present, three of five planned engineering buildings are open, with six of the nine departments now located on Centennial Campus.

The Burlington Textiles Library has been the only library service point on Centennial Campus and has come to serve as the library for all of Centennial Campus. As the campus has grown, the need for a large, central library with spaces, facilities, and staffing to support thousands of students and faculty has become critical. The long-awaited opening of the Hunt Library will provide an intellectual and social heart for the Centennial Campus with spaces and services that will scale to this diverse and growing community including faculty, students, staff, Centennial Campus partners, students living nearby, the local community, and tourists/visitors. The Hunt Library will also house the Institute for Emerging Issues (IEI) and several other centers and institutes.
Transportation options between Centennial Campus and the main campus consist of primarily personal vehicles and the Wolfline bus service, with numerous stops along the way making for a trip of at least 30-45 minutes. It is uncertain at this time whether there will be significant changes in bus service to and from the Hunt Library when it opens in 2013. A new parking deck has been added as part of the Hunt Library project, providing almost 600 spaces.

There is limited police presence on Centennial Campus, and it is often described as “deserted” during the evening and overnight hours.

Dining and recreational facilities/opportunities are also very limited on the campus. While there are projects planned and underway to address this, most of the significant ones will not be completed by the time the Hunt Library opens in early 2013.

Plans call for the Centennial Campus Apartments to be located across the Oval from the Hunt Library. The complex will contain 1,195 beds, a bookstore, dining, and an "Entrepreneur's Garage." Phase 1 is scheduled to be open by Fall 2013 and Phase 2 by Fall 2014.

A “Town Center” dining/retail complex is also envisioned on Main Campus Drive between Hunt and Lake Raleigh.
hunt library overview

The Hunt Library is envisioned as a beautiful and inspiring “signature” building that embodies the essence of Centennial Campus as a community built around knowledge and collaboration. It addresses pressing needs by providing space for library users and collections and a public forum for students and faculty to connect within and across disciplines on Centennial Campus.

While the Hunt Library focuses on the Colleges of Engineering and Textiles, it will be an additional main university library that welcomes and supports the entire campus community. With an impressive array of new technology including video walls and interactive displays, this library will serve as a technology “incubator” for the university where the real and virtual worlds come together.

The Hunt Library will provide a wide range of individual and group study settings that both support quiet, contemplative study and promote interaction and collaboration. The building will recognize the unique needs of different user groups and will offer spaces tailored to those needs. The library will also incorporate a sophisticated collection storage and retrieval system (the “bookBot”) in order to provide efficient and total access to its growing physical collections.
service philosophy

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.

- 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.
what is great service?

Workshop participants identified characteristics of the best and worst service experiences. Key conclusions include: Public services are everyone’s job, Follow-through / owning the problem and hand-offs and referrals are key, Consistency is key (otherwise hard to know and meet user expectations), and attitudes are paramount: customers need to be acknowledged and feel respected and taken care of.

<table>
<thead>
<tr>
<th>Best Service Experiences</th>
<th>Worst Service Experiences</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Examples:</strong> Carmax, Four Seasons, Florist, Sprint and Progress Energy, Disney, and a cruiseline</td>
<td><strong>Examples:</strong> Kroger self-checkout, fast food, air travel, DMV, Home Depot, and Financial Planners</td>
</tr>
<tr>
<td>• Fast/convenient</td>
<td>• No interim communication</td>
</tr>
<tr>
<td>• Felt taken care of</td>
<td>• Customer feeling invisible</td>
</tr>
<tr>
<td>• Expectations made clear and exceeded</td>
<td>• No advance information - cannot self-organize</td>
</tr>
<tr>
<td>• Time waiting was productive for customer and staff</td>
<td>• Ran out of product</td>
</tr>
<tr>
<td>• Sense of respect and professionalism (regardless of supervision)</td>
<td>• Creepiness of staff intervention / privacy invaded</td>
</tr>
<tr>
<td>• Staff provided “end-to-end” assistance, with someone “owning the problem”</td>
<td>• Stressful</td>
</tr>
<tr>
<td>• Good follow-through on “hand-offs” and referrals</td>
<td>• Unpredictable, inconsistent</td>
</tr>
<tr>
<td>• Aggregate supply of and demand for services (so as to handle peaks)</td>
<td>• Lack of options / choices</td>
</tr>
<tr>
<td>• Created a “pull-through” experience</td>
<td>• Nice employees, but without authority to solve your problem</td>
</tr>
<tr>
<td>• Created a new shared vocabulary</td>
<td>• Overly sensitive security</td>
</tr>
<tr>
<td>• Rule enforcement was positive, helpful, friendly</td>
<td>• Staff sense of “it’s not my job”</td>
</tr>
<tr>
<td></td>
<td>• No clear sense of “how it’s supposed to work”</td>
</tr>
</tbody>
</table>
To understand our current and future services from a user perspective, we mapped services via two key attributes: mobility and facilitation.
Service portfolio categories

Our major service categories that require staff effort can be viewed in terms of variable levels of activity driven by user-demand ("variable") vs. activities with a relatively consistent ("constant") level of work that may have seasonal variation but is not directly affected by physical and virtual traffic and usage.

<table>
<thead>
<tr>
<th>Service Categories</th>
<th>Building Access and Credentialing</th>
<th>Service Point and Mobile Services</th>
<th>Building Services and Security</th>
<th>Collection Access and Delivery</th>
<th>Reference and Research Consultation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Variable Services</strong></td>
<td>Access to building during restricted times, Assistance with access-controlled spaces, Provide visitor’s pass, Guest computing</td>
<td>Wayfinding, Circulation &amp; Tech. Lending, Reference triage, Technology &amp; computing support, Patron accounts, Event &amp; space logistics, Plotter support, Dispatch (roving)</td>
<td>Furniture resets, Quick repairs, Building issues, Gen. maintenance (including bookBot),</td>
<td>bookBot retrieval, Reserves/Textbooks, Delivery of materials, Interlibrary Loan</td>
<td>Includes all-public facing reference activities such as consultations in person, Ask Us monitoring, etc.</td>
</tr>
<tr>
<td><strong>Constant Services</strong></td>
<td>Staff presence at all times, Dispatch (in-person and IM)</td>
<td>Mailroom operations, Library van service, Liaison with Campus Facilities</td>
<td>Collection Maintenance, Open Shelves Management</td>
<td>Instruction, Workshops, Orientations, Web Services</td>
<td></td>
</tr>
<tr>
<td><strong>Notes</strong></td>
<td>Core/24-hour</td>
<td>Core/24 hour</td>
<td>Business hours, except for security and emergencies</td>
<td>Core/24-hour</td>
<td>Basic/intermediate reference is Core</td>
</tr>
</tbody>
</table>
Our major service categories that require staff effort can be viewed in terms of variable levels of activity driven by user-demand (“variable”) vs. activities with a relatively consistent (“constant”) level of work that may have seasonal variation but is not directly affected by physical and virtual traffic and usage.

<table>
<thead>
<tr>
<th>Service Categories</th>
<th>High-Tech Space, Adv. Computing, and Displays</th>
<th>Information Technology</th>
<th>Technical Services</th>
<th>Administration, Human Resources, Finance/Business</th>
<th>Outreach, Communications, and Tours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable Services</td>
<td>Teaching/Viz Use, Creativity Studio, Gaming Lab, Digital Media Support, Advanced Application Support</td>
<td>Respond to problem reports</td>
<td>Reserves/textbook record processing, Respond to problem reports (e.g., e-resource access)</td>
<td>Administrative presence for VIP visits/tours, Events</td>
<td>Tours for external and university visitors, Programming</td>
</tr>
<tr>
<td>Constant Services</td>
<td>Rich media content development and management, Project Cloud/Data, AV Systems Support</td>
<td>Staff Computing Public Computing Website Network</td>
<td>Acquisitions, Licensing, and Metadata for the Libraries</td>
<td>Library Administration, Human Resources (incl. student hiring), Finance and Business</td>
<td>Develop/maintain online &amp; mobile tour/orientation information</td>
</tr>
<tr>
<td>Notes</td>
<td>Critical application support is core/24 hr.</td>
<td>Critical application support is core/24 hr.</td>
<td>Business hours</td>
<td>Business hours</td>
<td>Business hours</td>
</tr>
</tbody>
</table>
Personas are fictitious characters created to embody specific key characteristics of target user groups. Personas allows you to package user research data into sample users that can, in turn, be used to develop use cases for your learning space and to design services.

We developed 10 personas to help design the service model for the Hunt Library, using the methods for creating “ad hoc” personas developed by Adlin and Pruitt (The Essential Personas Lifecycle) and based on interviews with and knowledge of users. These personas represent much of the spectrum of needs, but of course we anticipate an even more diverse range of users.

We developed the following user personas:

- Tina Tweed, Associate Professor, Textiles
- Larry Leadwell, Professor, Mechanical and Aerospace Engineering
- Hunter Powers, Professor, Polymer Science
- David Dwells, Assistant Professor, Biomedical Engineering
- Ahman Green, Masters Candidate in Electrical and Computer Engineering
- Sarah Scribbler, PhD Candidate in Textile/Apparel Management
- Matthew Camp, Junior in Computer Engineering
- Carrie Newby, Freshman in Textile and Fashion Management
- Tanya Crew, Senior in Chemical Engineering
- Amir Sahibi, Sophomore in Biology
To understand our key user types, we created “ad hoc” personas of students and faculty for the Hunt Library. The personas are described in detail in the appendix and summarized here.

<table>
<thead>
<tr>
<th>Tina</th>
<th>Larry</th>
<th>Hunter</th>
<th>David</th>
<th>Ahman</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associate Professor, Textile</td>
<td>Professor, Mechanical and Aerospace Eng</td>
<td>Professor, Polymer Science</td>
<td>Assistant Professor, Biomedical Engineering</td>
<td>Masters Grad Student, Electrical/Computer Engineering</td>
</tr>
<tr>
<td>Teaching</td>
<td>Access to research information anytime/anywhere</td>
<td>University’s reputation connecting, networking Meetings and events University-mission related, big-picture</td>
<td>Primary needs are collection/resource-based. Huge library advocate</td>
<td>Save time, efficiency Quiet study Private, focus, retreat Seamless connectivity with UNC/NSCU (cross-institutional)</td>
</tr>
<tr>
<td>Reserves</td>
<td>Teaches in library</td>
<td>Informal (and formal) meetings Tours, events, room set-up and assistance One-on-one personal contact with staff</td>
<td>Heavy user of e-journals and reference services Uses physical library for nostalgic reasons Place of learning Personal attention</td>
<td>Retreat Online collection Assignments create demand for reference services Needs education about library services</td>
</tr>
<tr>
<td>Long building hours</td>
<td>Library as there to help her students – on-demand and info literacy Food/coffee</td>
<td>Impress visitors Connect students from different disciplines Make exceptions for him First-class experience Food/coffee</td>
<td>Format-agnostic delivery of resources High-level of service from reference librarians Food/coffee</td>
<td>Constructive blocks of time Library &quot;just works&quot; and stays out the way Busy, on the move Food/coffee</td>
</tr>
</tbody>
</table>
To understand our key user types, we created “ad hoc” personas of students and faculty for the Hunt Library. The personas are described in detail in the appendix and summarized here.

<table>
<thead>
<tr>
<th>Sarah</th>
<th>Matthew</th>
<th>Carrie</th>
<th>Tanya</th>
<th>Amir</th>
</tr>
</thead>
<tbody>
<tr>
<td>PhD Grad Student, Textile / Apparel Management</td>
<td>Undergrad Junior, Computer Engineering</td>
<td>Undergrad Freshman, Textile and Fashion Mgmt</td>
<td>Undergrad Senior, Chem E</td>
<td>Sophomore, Biology</td>
</tr>
<tr>
<td><strong>MOTIVATION</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Research support</td>
<td>Needs to get away</td>
<td>Social connections</td>
<td>In-depth routine</td>
<td>Gaming</td>
</tr>
<tr>
<td>Find space to work</td>
<td>Quiet work area</td>
<td>See and be seen</td>
<td>Hardcore groupwork</td>
<td>Meet Friends</td>
</tr>
<tr>
<td>Portable information</td>
<td>Food</td>
<td>Needs orientation</td>
<td>Space use -- not as</td>
<td>Hang out</td>
</tr>
<tr>
<td>Needs help organizing</td>
<td>Lots of space</td>
<td>Wants to know what's</td>
<td>much need for</td>
<td>Fewer real info needs</td>
</tr>
<tr>
<td></td>
<td>Between-class space</td>
<td>available. What can I do?</td>
<td>information/resources</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Wants to be around</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>other engineers</td>
<td></td>
</tr>
<tr>
<td><strong>BEHAVIOR</strong></td>
<td></td>
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<tr>
<td>High needs (a lot of library attention required)</td>
<td>Looks for isolation</td>
<td>Studies with friends</td>
<td>Looks for space to</td>
<td>Intense conversation / interaction with</td>
</tr>
<tr>
<td>Spreads out</td>
<td>Camps out</td>
<td>Lots of groupwork</td>
<td>camp out</td>
<td>friends</td>
</tr>
<tr>
<td>Long hours, late nights, weekends</td>
<td>Spreads out</td>
<td>Presentation practice</td>
<td>Gathers with large groups to study</td>
<td>Late nights</td>
</tr>
<tr>
<td>Heavy use of interlibrary loan</td>
<td>Moves between campuses</td>
<td>Get coffee / comforts</td>
<td></td>
<td>Chat/Eat/Play/Study</td>
</tr>
<tr>
<td></td>
<td>Blocks of time</td>
<td></td>
<td></td>
<td>Uses class notes instead of textbooks</td>
</tr>
<tr>
<td><strong>EXPECTATIONS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tools for research</td>
<td>Available tech that is there if he needs it</td>
<td>Orientation</td>
<td>Easy to find a place to study</td>
<td>Comfortable seating</td>
</tr>
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<td>Space to work - place to get work done</td>
<td>Good wireless</td>
<td>Good facilities</td>
<td>Safety</td>
<td>Place to hang out</td>
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<td>Help with scheduling</td>
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<td>Gaming resources</td>
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<td>Strong delivery services</td>
<td>Food/coffee</td>
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journey map overview

A customer journey map is a tool for imagining a future experience using a service (or evaluating the current user experience) by identifying the user activities and “touchpoints” where users interact with a service. Personas are used to create these hypothetical journeys in time, identifying key moments along the way.

We used customer journey mapping to play out different usage scenarios within the Hunt Library for our personas and learn about how our services could meet user needs. The maps were refined over time as we learned more and explored different use cases. The journey maps we created are in the appendix of the report.

The following Customer Journey Maps were created:

- Tours for groups of new students, unknown visitors, scheduled VIPs, unscheduled VIPs, partner / affiliates
- Research and technology consultations, both general and advanced
- Use of study rooms, media rooms, textbooks, and printing
- Requesting and retrieving different items from the bookBot or open shelves, including circulating items picked up at Hunt or elsewhere, government docs, microfiche, and SCRC materials
- Use of high-tech spaces such as teaching and visualization spaces, Technology Showcase, Gaming Lab
- Use of access-controlled spaces such as at the Graduate and Research Commons

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<thead>
<tr>
<th>Customer Journey Map</th>
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<td>Activities</td>
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<td>Environment</td>
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<td>Interactions</td>
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<td>Time / Space 2</td>
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<td>Time / Space 3</td>
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<td>Touchpoint description...</td>
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- Use of access-controlled spaces such as at the Graduate and Research Commons
journey map findings

As we developed and refined the journey maps, we learned several key points about our spaces, services, and staffing, including:

- Requiring credentialing affects everyone’s journey/entry into the library.
- There are differences between a first use of a service and later uses. We need to plan for both, since our user base changes constantly.
- There will be an important need to summon help, both for users contacting staff and for staff contacting each other, for instance, to escalate a research consultation to an expert.
- Access-controlled spaces (like the Graduate Commons) present specific challenges for which we must prepare (e.g., people will inadvertently exit without their ID cards).
- Reference consults will be conducted at alternate locations to the service point, such as near the tech showcase or in study rooms.
- While there are a variety of tours, these can be organized according to whether they are scheduled or not, mediated or not, and by type of users: unknown vs. student vs. “VIP”.
service blueprint overview

A service blueprint is an operational planning tool that provides guidance on service delivery by describing the evidence of the service, the customer actions, front-line staff actions, behind-the-scenes staff actions, and required infrastructure/systems for each of the channels through which the service is delivered.

We used service blueprints to design new and innovative services/spaces for the Hunt Library (and examine the implications for D. H. Hill and other locations). They were developed in an iterative process and updated as we learned more from research and prototyping. The blueprints are in the appendix of the report.

Service Blueprints were created for the following services:
- Wayfinding
- Reference
- Requesting/checking out bookBot items
- Technical Help
- Printing
- Guest computing
- Events, Workshops, and Instruction
- Tours for Affiliated Users and External Visitors
- Conferencing and Collaboration
- Creativity Studio
- Gaming Lab
- Immersion Theater
- Private Project Cloud
- Teaching and Visualization Lab
- Service point item retrieval
- Meet-me Space
service blueprint findings

As we developed and refined the blueprints, we recognized several key points about our spaces, services, and staffing, including:

- Real-time communication among staff will be critical to convey availability, location, and areas of expertise for consultations as well as to handle surges in demand.

- We must think about public services and technology support in an integrated way; they are the same in users’ minds, and the infrastructure, systems, and support behind the scenes is what enables exceptional service on the frontline (see “infrastructure” row on each blueprint).

- Orientation will be required for certain high-tech spaces like the Teaching and Visualization Lab and Creativity Studio, akin to the need to get “certified” to use a shop space.

- Multiple tiers of student workers will be needed, with increasing experience, responsibility, and robust skills. This will require changing the wage structure as well as attention to recruitment, training, and management.

- We are designing a major shift in reference services, recognizing that they are delivered in an increasingly mobile, online environment. We will need to triage user inquiries and summon appropriate staff, with extended consultations taking place outside the service point.

- Visibility of the roving staff will be critical so that they are easily spotted and perceived as approachable.

- An open hold shelf at the service point could enable self-service (with help visible if needed).

- Most bookBot item requests will be automatic, but some will require special attention.

- The marketing of services will be crucial so that users are aware of what the library is offering.

- Building-wide shared spaces present complexities in terms of scheduling, setup, and reset.

- Credentialed spaces require the ability for staff to resolve access questions and problems promptly.
service point

One of the most critical elements of the Hunt Library will be its “one-stop” service point. To develop the service point, we have considered the services to be offered, estimated staffing levels, and created physical mock-ups of the space to determine configurations of furniture, technology, and collections as well as run different scenarios within it for staff. More prototyping with students is planned.

Based on our research and prototyping, the key recommendations for the service point include:

• It is an area or zone, not a desk.

• It must be visually appealing, contemporary, and welcoming, since it contributes significantly to a visitor’s first impression of the library.

• The space should help convey that service providers here are fully capable of addressing all types of needs and problems – credibility and trust are key elements of user experience.

• It includes a concierge standing at a visible spot to assess patron needs and provide a welcoming presence.

• It operates with different staffing scenarios based on service needs at the time.

• There are multiple possible configurations for arranging furniture and equipment in the service point space. Some “protected” space with “staff only” access is needed. Consider flexibility of furnishings so that adjustments can be made after opening.
staffing overview

The NCSU Libraries is currently staffed by 101 EPA staff, including librarians and professionals in specializations such as development, finance and business, and communications, and by 115 SPA staff, including IT professionals, library support staff, and administrative support staff. The Libraries employs 45 - 50 FTE (approximately 175-200 headcount) student assistants.

Due to economic pressures in the last several years, the Libraries has not received new positions to provide a workforce for the Hunt Library. However, the Libraries has been saving vacant positions to reallocate to the Hunt Library. This has been achieved by gaining efficiencies in several areas, including technical services, and by increasing reliance upon student assistants in public services in the D. H. Hill Library.

When the Hunt Library opens on Centennial Campus, the Textiles branch library will close, and the six Textiles Library staff will move to Hunt. When the working collections currently housed in the Libraries’ Satellite Shelving Facility move to Hunt, those two Access and Delivery Services positions will move to Hunt. Plans are in place to reallocate one current Bookstacks position.

The newly filled Emerging Technologies Librarian and two recently appointed University Library Technicians have been hired for Hunt. Several staff members from Information Technology will be assigned to Hunt as their primary location. All of the staff of Content Acquisitions and Licensing and Metadata and Cataloging will be housed at Hunt. Some existing Building Services FTE may be able to go to Hunt.

As we look to the future, it is important to note that we will be building on the strengths of our current staff and our current trajectories: coupling self-serve and mobile with proactive, high-touch service, partnering with our users, and developing sophisticated systems and support to make this all possible.

¹The State of North Carolina has designated staff as either Exempt from the Personnel Act of North Carolina (EPA) or Subject to the Personnel Act of North Carolina (SPA).
service design findings

*Through our conversations, research, quantitative modeling, and prototyping, we have recognized the following about our services. These findings will guide our preparations for opening the Hunt Library.*

- Library service delivery may take place at fixed or mobile locations and may be either self-serve or mediated. We recognize that user needs and preferences vary across these dimensions, and it is our goal to place staff in roles that maximize both quality and efficiency, offering self-service options where feasible.

- The Hunt Library service model is an opportunity to reduce the emphasis on staff based at desks. Public service staff will have shifts when they are on call or actively roving.

- Some differences in services among library locations are inevitable, but philosophy, policy, and quality of service should be consistent.

- The Hunt Library will feature a mix of reservable and open spaces, and some credentialed interior spaces.

- Users of high-tech spaces will require orientation and training at least for their first use and may require ongoing support.

- Facilitating the desired user experience is as much a function of technology, systems, infrastructure, and support behind the scenes as it is the work of front-line staff. Our organizational structure and training should facilitate this integration.

- The Hunt Library will require support activities with which we do not have experience. We will need to provide excellent training for staff and student assistants that emphasizes judgment, improvisational problem solving, and flexibility.

- Real-time staff communications across spaces and buildings will be critical.

- Users need ways to call for help in physical space.

- Users and staff need easy ways to find each other, and roving staff need to be readily identifiable within spaces.

- Tours of the space will range from self-guided with mobile digital content to guided regularly scheduled, to planned/led, and unplanned led.

- Displays, including the MicroTiles, will require significant content creation and curation.
service recommendations

*Through analysis of existing services, projection of future needs, and hands-on activities designing the service model and the staffing to support it, our recommendations are:*

- Maintain the current 24x5 schedule at the D.H. Hill Library, and offer a schedule at Hunt as follows: Monday–Thursday, 7am – midnight; Friday, 7am – 10pm; Saturday 9am-10pm; Sunday 9am-midnight. *

- Restrict the use of the Hunt Library to NCSU-affiliated users starting at a designated time in the evening. Require users to swipe campus ID to enter during those hours (no security staff and no “exception” process). *

- When the Hunt Library opens, do not check the credentials of users/visitors except during restricted hours (as above). *

- Create a position and organizational structure around the new focus on the user experience, to include responsibility for the service point, library web services, mobile/roaming services and “peer-to-peer” services in high-tech spaces.

- Infuse the new Service Philosophy (p. 24) in the organizational culture through training, recruitment, and performance management.

- Create new student assistant positions to provide services in the high-tech spaces (Teaching and Visualization lab, Creativity Studio, Gaming, Immersion Theater). Engage with the colleges (particularly the College of Engineering) to identify and select students.

- Conduct outreach to and partner with faculty and others regarding multi-disciplinary content for the high-tech spaces and display walls and for the library collection.

- Offer self-service options where feasible, e.g., vended laptop lending and an open hold shelf within the service point area for materials other than reserves and textbooks.

- Provide a concierge function at the service point to welcome users, triage and solve problems, and summon expert help.

- Create a way to signal for help and receive it either virtually or physically at a meeting point (e.g., “meet me spot”) to complement the central service point.

*These recommendations require consultation with the campus community and university administration.*
service recommendations (cont’d)

Through analysis of existing services, projection of future needs, and hands-on activities designing the service model and the staffing to support it, our recommendations are:

- Implement an integrated patron communication and response system for the D. H. Hill and Hunt libraries, and branch libraries where applicable (e.g., telephone, chat, email reference service).

- Prioritize information technology resources to support innovative tools and spaces, and to enable the automation of processes.

- Bundle services for user convenience and efficiency, e.g., requesting technology lending or consultation when reserving a room.

- Do not staff the Technology Showcase on a continuous basis – activate as needed for activities such as demonstrations or orientation to the Technology Lending Service.

- Charge a group to create a program for visitors to tour the facility with minimal disruption for users.

- Continue to assess outside factors that affect Hunt Library service needs and user environment, e.g., bus schedules, food options, campus security.

- Assess, improve, and redefine services continuously, in consultation with users.
staffing model findings

• Using an inventory of existing positions, we determined that staffing can be usefully categorized by level and by role. Four levels can be considered: Basic support, Problem Solving/Supervising, Consulting/Managing, and Expert/Developer. These categories include:
  • Library Technicians and Library Specialists span the Basic through Problem Solving/Supervising levels.
  • Technical Support staff span the Problem Solving/Supervising and Consulting/Managing levels.
  • Programmers and Librarians span the Consulting/Managing and Expert/Developer levels.
  • Student assistants, including graduate students, can span the levels of expertise.

• Existing position classifications can be used to staff the Hunt Library: Library Technician and Library Specialist; Technical Support positions; Programmers; Librarians; and student and graduate student assistants.

• New technologies are likely to require recruiting for skill sets not currently resident in the NCSU Libraries.

• The Hunt Library will require staff with knowledge of the NCSU Libraries context on “day one,” which will affect the assignment of staff and the schedule for training.

• The new service model requires a strong emphasis on the user experience that needs to be reflected in staffing and organizational structure. Administrative responsibility, accountability, and reporting lines need to be determined. (Addressed in Service Recs.)

• All areas, including the service point, should be staffed to meet user needs in real time.

• A “service manager” role is needed to provide coordination, oversight, and triage as well as pulse-taking of user needs without getting distracted by virtual support requests. This will be a primary role for certain positions and can also be filled by other staff serving as “manager on duty” on occasion, such as during slow times.
staffing model findings (cont’d)

Additional findings include:

• The position skills inventory shows that technical services staff have skills that could be used to support some functions now being performed by public services staff.

• Excellent customer service depends as much upon interpersonal and public service skills as task knowledge. Staff assignments should be based upon all factors.

• Recruitment, training, and management of student assistants will constitute significant ongoing effort, and their role is central to the user experience and “student ownership” feel that should characterize the Hunt Library.

• Current student pay scales do not provide enough tiers to support higher-level responsibilities.
staffing recommendations

*Through analysis of existing services, projection of future needs, and hands-on activities designing the service model and the staffing to support it, our recommendations are:*

- Provide up to 26 FTE permanent staff for the Hunt Library to meet the recommended schedule (see p. 7) by transferring current staff and reallocating vacant positions (see p. 10).

- If resources are not sufficient to provide the 26 recommended positions, examine the service categories and associated effort across the Libraries, along with the operating schedule, for potential adjustments.

- Develop a service point schedule for the Hunt Library that handles surges in demand using real-time communications to summon staff to service areas, and roving staff assignments.

- Revise student assistant pay grades to compensate for higher levels of responsibility in high-tech spaces or for supervision.

- Reallocate the base wages budget across the Libraries to reflect decreasing demand at D. H. Hill (circulation, shelving, services) once Hunt comes online.

- Develop a sustainable recruitment, training, and retention program that will focus on meeting our increased reliance on student staffing.

- Determine staff schedule, training, and location(s) for integrated patron communication system.

- Move technical functions from public services to back-of-house where advantageous and appropriate to existing skill sets, e.g., reserve records processing.

- Provide staff with skills to support new technology-rich spaces and associated services.

- Provide professional customer service training for public service staff, using a “train the trainer” approach so this can be sustained internally, especially given turnover of students.
next steps

Engagement & Communication
• Share this report broadly with NCSU Libraries staff, seek input, and address questions; share with other stakeholders such as the University Library Committee.
• Engage staff in identifying the many operational and implementation-oriented decisions to be made and in suggesting solutions.

Make key decisions
• Communicate staffing assignment changes to current staff.
• Recruit and fill vacant Hunt positions.
• Make final decision on building operating hours based on staffing needs, budget, university consultation, transportation, and security factors.
• Select a name for the service point as well as the tentatively titled “meet-me” service and designated point on each floor.

Further work to be completed:
• Create detailed implementation timeline leading up to move-in and identifying those services which will be phased in after move-in.
• Continue with tool/system development in preparation for the opening of the Hunt Library, including the continuing prototyping efforts identified as “ongoing.”
• Complete and assess any prototyping work now underway to address remaining open questions and incorporate findings into physical design and service design.
• Identify sources of professional customer service training for staff, develop project scope, and launch and complete project, assuming a “train the trainer” approach.
• Move into and open the Hunt Library and then conduct rigorous post-occupancy evaluation of spaces and services.
contributors

The following people contributed to this effort and report. The Libraries appreciates their time, effort, and insights in developing the service design and staffing model.

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- Mike Kastellec, Fellow
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